

CHEMICAL MARKETS

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A Monthly Economic Review
of Chemistry and Industry

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SEPTEMBER 8, 1927



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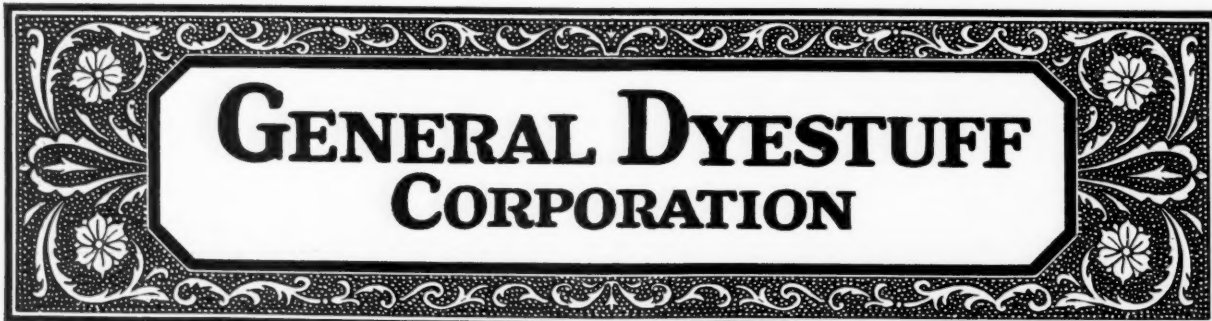
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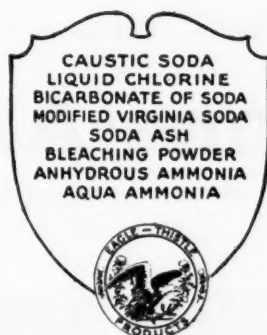
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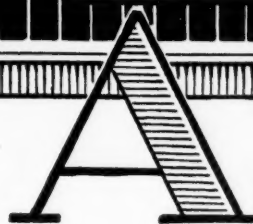
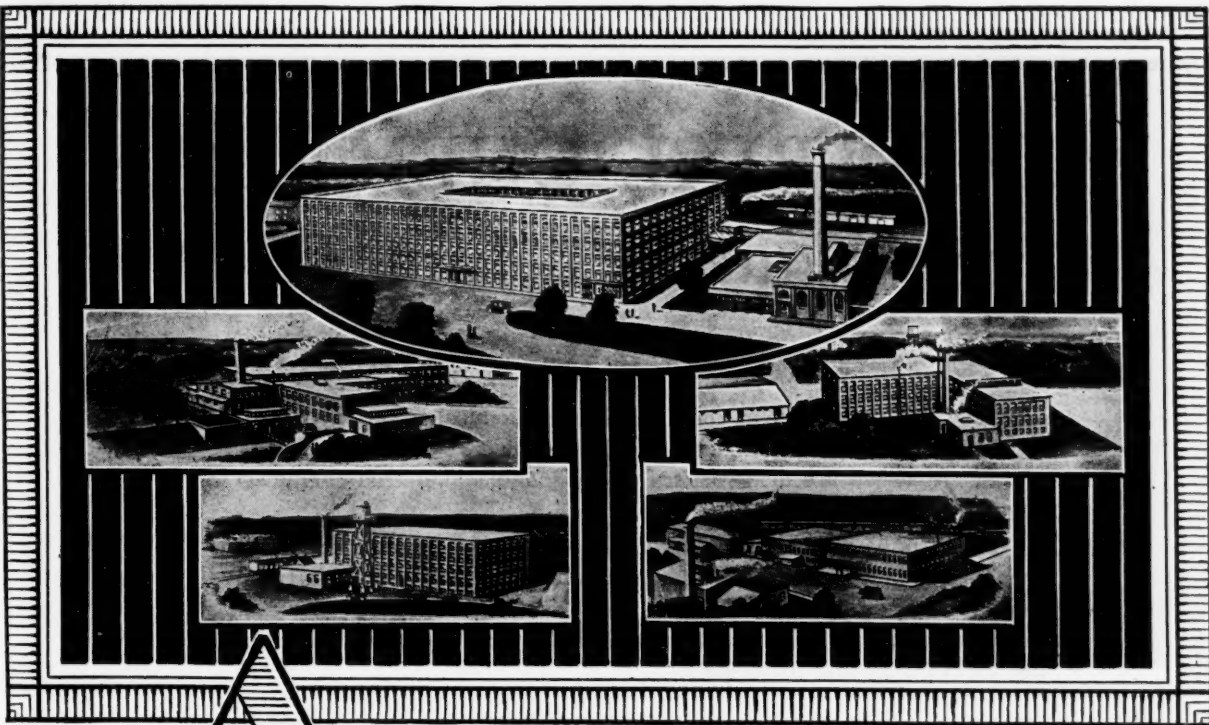
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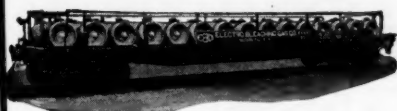
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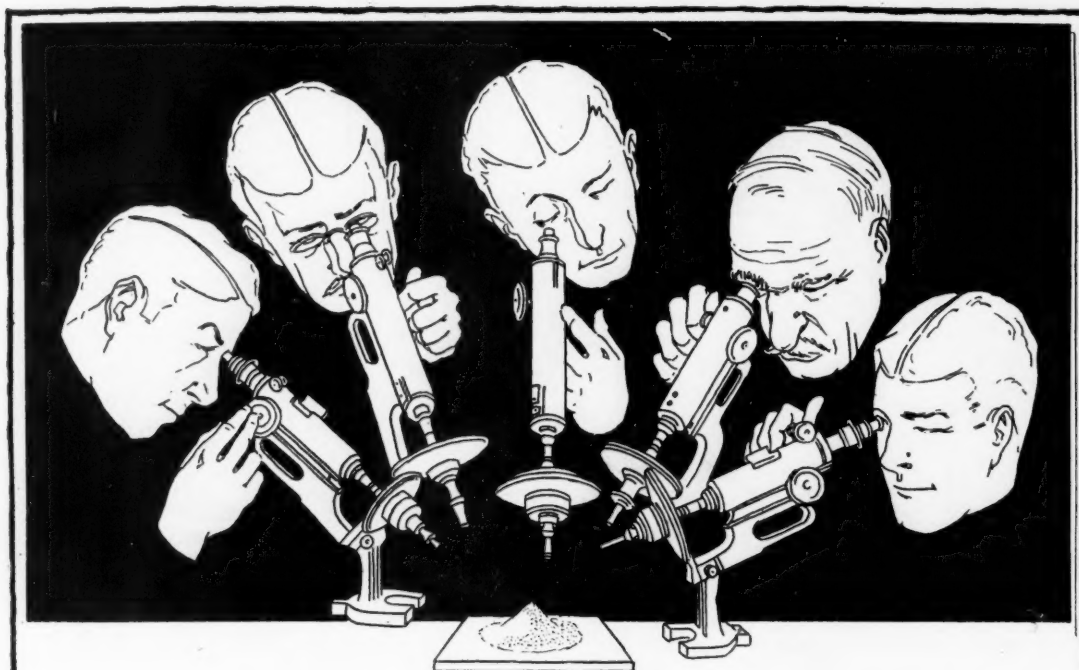
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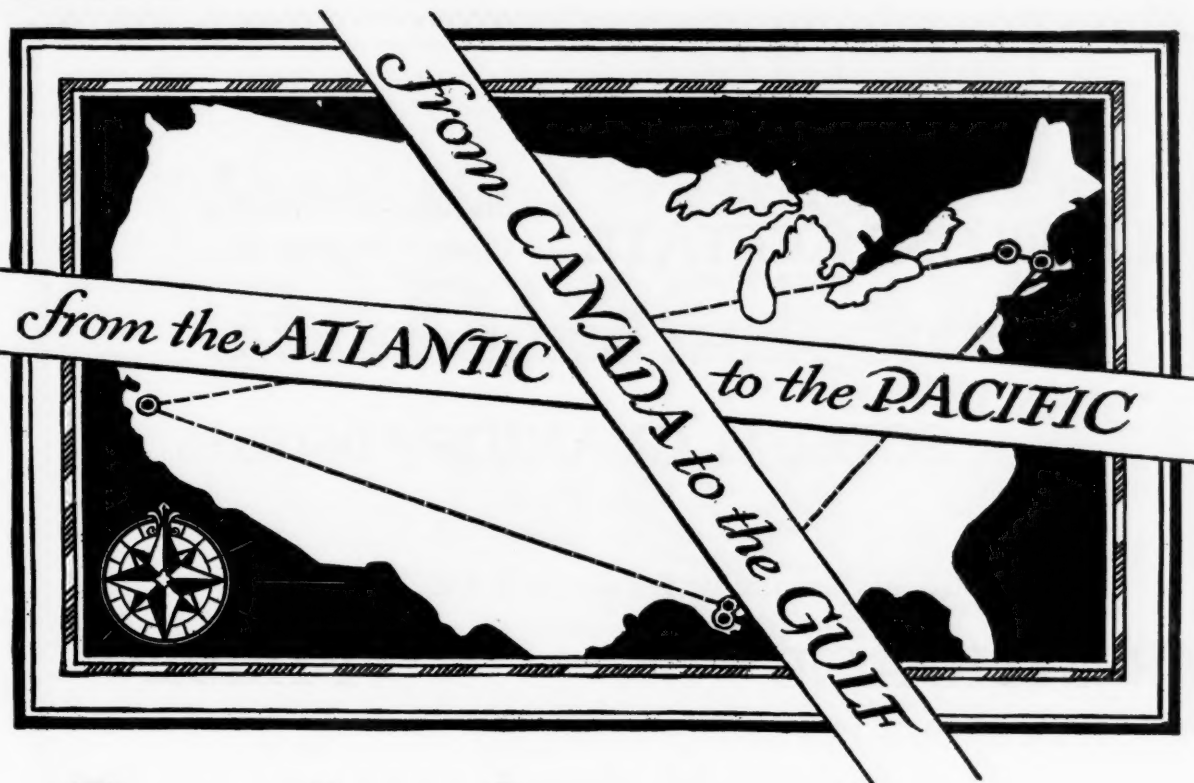
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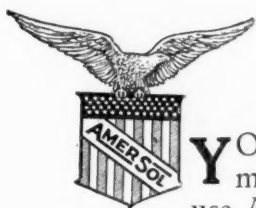
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CHEMICAL MARKETS

VOL. XXI

SEPTEMBER 8, 1927

No. 10

Chemical Competition

THE "new competition"—meaning competition between the different industrial groups—has become of late a catchword among business journalist. They delight in describing the battle of silk and rayon and the struggle between varnish and lacquer. This inter-product competition is a familiar chemical type, so familiar, in fact, that we are prone to overlook some of its obvious consequences.

FOR example, during the war, a new fermentation process to produce acetone and butyl alcohol from corn was perfected and came into commercial operation chiefly because of the market for the former product. The commercial development of lacquers had been retarded by lack of adequate supplies of a proper solvent, amyl alcohol being a by-product in always limited stocks. Butyl alcohol from this fermentation process literally made possible the astonishing growth of nitrocellulose lacquers and accordingly became the major product. In passing let us note that amyl alcohol produced chemically from pentane has appeared, an intriguing promise of "new competition." The butyl alcohol fermentation process, however, is unique in that it produces as a by-product hydrogen instead of carbon dioxide, and this naturally suggested a synthesis either of ammonia or of methyl alcohol by the gas pressure process. Accordingly, this fermentation pro-

cess has come quite unconsciously into competition with the wood chemical industry on two products, acetone and methanol.

EVEN ten years ago who would have suspected that the industry based on the destructive distillation of hard woods was not one of the most stable chemical enterprises. For three centuries reasonable technical advances had lowered cost and raised yield. It sold four products—charcoal, acetone, acetate of lime, and methanol—into widely diverging fields. Today by-product acetone is in control of that market. Acetic acid made from carbide cuts seriously into acetate of lime consumption. Synthetic methanol has forced two sharp price reductions within the past month. The wood chemical industry is in undisputed possession only of the markets for the denaturing grade of methanol and for charcoal.

THIS familiar chemical story has a moral.

Highly dangerous factors lurk in chemical competition, and the hard-pressed, much-maligned wood chemical manufacturers are themselves pointing the way to the only adequate means of meeting this new kind of competition—their leaders are planning to bring them together at the Government Forest Products Laboratory to study how they can create new markets for the tar and the oils which, up to the present, they have themselves considered as by-products.

OMITTING CHEMICALS

Nothing is so apt to be misleading as to take literally the statements of a public man made for publication; but those of us who remember the glorious war time conservation of the higher military commands in the matter of modern tactics, can hardly believe that there is great injustice in quoting our Chief of Staff, who told the officers gathered at the War College last week that "The vision of a different kind of war from that of 1917 must be extended to mobility and combat."

Major General Summerall admits that trucks and tanks will take the place of forced marches. He recognizes the use of planes, but he so blindly—whether intentionally or for public policy—omits all reference to gas warfare that it is quite fair to ask him if he really believes that he sums up the tactics of the future when he says: "Semi-automatic rifles must give the infantryman the necessary volume of fire, and increased range and power of artillery must afford more effective support. Thus alone can be accomplished the battle phases of neutralizing the enemy by fire and exploiting his position afterward by the infantry."

Direct advertising to the public is practically useless as a means of increasing consumption of industrial chemicals. Consumption of chemicals can only grow as the needs of the chemical consuming industries grow. We have all seen the great growth of the lacquer and rayon industries and their stimulating effects upon the solvents and the caustic branches of chemistry. We have also seen the effect of the "Save the Surface" campaign by paint and varnish manufacturers upon the movement of chemicals entering that industry. Now soap manufacturers are undertaking a co-operative movement to force more consumption of soap. "The Cleanliness Institute", sponsored by the American Soap & Glycerin Association, should be aided to the fullest extent by chemical manufacturers for as soap manufacturers benefit from its results, so in like measure will the chemical manufacturers receive their share.

Interest is beginning to crystallize in the forthcoming Eleventh Exposition of Chemical Industries which will be held during the week of September twenty-sixth at the Grand Central Palace, New York. From advance information it is evident that this year's exposition will surpass its predecessors not only in the number of exhibitors but also from a point of general interest. Taking advantage of the fact that the exposition is open for the first time to foreign exhibitors, some fifteen of these latter have taken booths and it will be interesting to note the benefits derived by these pioneers in this venture. One of the high lights of

the Exposition will be the Fifth Chemical Industries banquet, sponsored by the Salesmen's Association of the American Chemical Industry, assisted by practically every Association in the chemical process industries.

Misunderstanding between the technical and commercial elements of the chemical industry has long been the pet skeleton in the chemical closet. The action of the Council meeting of the American Chemical Society in Detroit in approving the suggestion that the Society establish a section of Chemical Economics is a step forward in the work of helping the chemist appreciate the practical side of the industry.

The new Federal Caustic Poison Act which went into effect at the opening of this week is considered rather unwieldy by many in the chemical and allied fields. Confusion and uncertainty almost invariably follow in the wake of a law of this type and many manufacturers should take advantage of the public hearing which will be held in Washington on September 20 by the U. S. Department of Agriculture to enter protests or suggest improvements for the better working of the Act.

The announced advance in alcohol of two cents a gallon on Tuesday last is not surprising. All the factors which determine the rise or fall of any market pointed and continue to point to higher prices.

[Ten Years Ago]

(From Drug & Chemical Markets, Sept. 5, 1917)

Caustic soda has become short owing to the demand for the manufacturers of explosives. Paper and textile manufacturers have been heavy buyers.

Sulfuric acid, 66 degree brimstone, is quoted at \$35 to \$36 per ton. Pyrate acid is \$30.

Sodium nitrate is scarce, and quoted at 6¼@6½ per pound for refined.

Asbestos textile and paper manufacturers are rushed with U. S. Government orders on war contracts. Sixteen cantonments must be completed as soon as possible.

Chinese egg albumen is scarce. Prices range from \$1. to \$1.00 per pound.

Benzol is quoted at 50c@53c per gallon.

French Government plans to break the German monopoly in dyes by organizing a company with \$8,000,000 capital to make dyes and chemicals.

The Strength of Alcohol

Greatly curtailed production, higher raw material costs, increased consumption and the approach of the Winter season have already forced an advance of two cents a gallon and a further increase is expected

WHAT "blackstrap" molasses is no longer a by-product with its importance as the principal ingredient in denatured alcohol is a situation which was forecast in an article entitled "Molasses and Alcohol" appearing in the December 9, 1926 issue of CHEMICAL MARKETS.

Not a great deal is known by consumers of alcohol of the movements of molasses for the reason that until a short time ago distillers did not take the cost of molasses into serious consideration when determining the price of alcohol. Now that molasses has been lifted from the by-product class and at the moment is a sellers', rather than a buyers' market, its movements should be of prime interest to the consumer.

Considerable newspaper space has recently been devoted to the possibility of President Machado of Cuba still further restricting the production of sugar in Cuba next year to 4,000,000 tons as compared with 4,500,000 tons this year. This of course, has a direct bearing on the molasses production and should the proposal become a law, the molasses output will be effected to a like degree.

Some idea of just how true the above referred to forecast was, may be gathered from a comparison of the present day price of blackstrap of 7½¢ per pound, f.o.b. Atlantic ports with that of 3½¢ per pound in the same position at the time of the publication of the article in 1926.

This increase in the cost of molasses is one of two factors affecting the present firm attitude taken by distillers in quoting on future requirements of alcohol. The other factor is the surprising shortage of alcohol production for the first seven months of the current year in comparison with a like period during 1926. The following table of wine gallon production shows the production in this country in round figures for the first seven months of 1926 and 1927.

1927	1926
Wine gallons	Wine gallons
6,900,000	8,600,000
5,300,000	6,700,000
4,900,000	6,900,000
6,600,000	6,700,000
6,800,000	7,000,000
7,300,000	9,200,000
8,000,000	9,100,000
45,800,000	54,200,000

The above figures are in round lots, but may be accepted as authentic. Figured on the basis of two and one-half proof gallons to each wine gallon the shortage of proof gallons is approximately twenty million. Further there is no reason to believe that the production

for the balance of the year will be speeded up even to the extent of keeping pace with 1926 production.

On these two facts will be based any claim advanced by distillers should a further general advance in the price of denatured alcohol be announced in the near future. This year distillers have taken a different attitude toward the sale of their production. While last year everyone was striving to produce all the alcohol possible and therefore sell as much more as anyone else as possible, regardless of price, this year price is the paramount issue and it is a fact that in some cases plants have only been operating at seventy percent of the usual capacity because of the determination not to pursue the policies of last year, which almost resulted disastrously in some cases.

There are several other factors which enter into the position today and seem to point to an advance all along the line before the Fall is many weeks old. One of these is that the anti-freeze business which was entered into so enthusiastically by practically all producers at the beginning of last season proved somewhat of a fizzle. Attractive packages were designed to assist in the sale of alcohol for anti-freeze purposes and a general advertising campaign was carried on for some time in daily and trade papers. All this was apparently of little avail for the sale of alcohol through these channels was admittedly a disappointment to the producers. Weather conditions were of course largely responsible for small sales volume. This year, however, the producers take the attitude that regardless of the volume of business done in anti-freeze alcohol it cannot be worse than it was during the Winter of 1926 and that any increase in the volume will only strengthen their position, as they are not banking on any great drain on their stocks from this source. Another thing to be taken into consideration, and incidentally might serve to account for a part of the curtailed production is the damage done to alcohol plants in the heart of the producing district of Louisiana by the flood waters of the Mississippi. With the two plants of the American Solvents and Chemical Co., one plant each of the U. S. Industrial Alcohol Co., Federal Products Co. and the Rossville Co., as well as two large molasses plants in the flood area district it was at first supposed that the crippling of the alcohol industry would be far reaching. However, this was not the case, though there was considerable inconvenience caused and some curtailment of production. Just how much this amounted to is not known as the details were not made public.

On September 1, prices were automatically advanced a cent a gallon, and completely denatured alcohol is now being held at 44¢ gallon in tank cars and 46¢ gallon in drums in carlots, f.o.b. producing centers. A canvass of producers reveals no particular desire to push business and the first hand market can fairly be called quite firm.

It is true that dealers carrying local stocks are still shading prices on small lots in various parts of the country, but it is the contention of the producers that this is carryover stock, purchased when the market was sagging.

Summing up the position as it appears today it seems only reasonable that the combination of higher raw material costs, curtailed production, the possibility of a larger sale for anti-freeze purposes, and the certainty that sales are increasing rapidly in other consuming fields will force an advance before the Winter season.

Since this article has gone to press the factors entering into the current alcohol position have begun to make themselves felt, with the result that on Tuesday last, the largest producers announced a 2c per gallon advance on all grades, which precipitated a like advance in all directions. It is generally felt in the trade that further increases through the Fall months will follow this initial advance.

ITALY RECLAIMS WASTE RAYON SODA

Great attention has been given in Italy to the most profitable use of the press soda contained in the waste lye waters of the rayon industry, according to Assistant Trade Commissioner, E. Humes at Rome. Several methods of reclaiming this soda are in use, but Professors Giordani and Cittadini of the Electro-chemical Laboratory of the Royal Engineering School of Naples in concert with the Soie de Chatillon and the Elettrochimica Pomili at Naples have worked out a new direct use of this soda which they believe will have decided economic advantage over its recovery. The Elettrochimica at Naples produces cellulose from various fibers by the action of chlorine gas by the Cataldi-Pomilio patents. Giordani and Cittadini have now proved to their satisfaction by laboratory experiments with soda lye waste waters from the Soie de Chatillon that this soda can be successfully used for the preliminary soaking operation in the preparation of cellulose in the chlorine gas process. They used poplar fiber in their experiments but stated that the same results can be obtained with esparto grass.

Equal amounts (1.8 kilos) of caustic soda and cellulose are used in the manufacture of each kilo of viscose rayon. About one quarter of the soda used can not be turned back into the manufacturing cycle owing to its high content of hemi-cellulose and it is therefore sold to soap manufacturers at a low price or else is lost entirely. By the Cataldi-Pomilio chlorine gas process 1.26 kilos of chlorine gas are necessary to produce 1.8 kilos of cellulose. In obtaining the above amount of chlorine gas, 1.44 kilos of electrolytic soda of rayon, a further 0.36 kilos of caustic soda is required. The press soda is quite sufficient to cover the needs of soda for the preliminary alkaline solution in the preparation of cellulose. The remaining 0.36 kilos of soda needed to produce one kilo of rayon represent 36 per cent in terms of weight of the rayon produced, or, calculating Italy's rayon production at 30,000 tons annually, this would mean a production of about 11,000 tons of soda used by the rayon industry, for which the corresponding production of chlorine gas would not be absorbed in the production of cellulose and would have to be absorbed by other industries.

It has been suggested that an amalgamation of the rayon and electrolytic soda industries would be most advantageous as it would assure the former a domestic supply of cellulose and a profitable use of the waste soda and the latter a satisfactory outlet for the chlorine gas obtained as a by-product of the industry.

Who's Who in the Chemical Industry

Holger V. Berg, retired, Newport, Del. Born: Copenhagen, Denmark, Dec. 5, 1882. Educat.: B. S., (Chemistry) Univ. of Copenhagen. Bus.: Krebs Pigment & Chem. Co., 1906-1926. Started as chemist, retired as v. p. and gen. mgr., at present, gentleman farmer. Public Record: pre., Town Commissioners, Newport, Del. Mem.: Amer. Chem. Soc., v. p. local Del. section, 1925; Amer. Inst. Chem. Eng.: Franklin Inst.; Wilmington Country, University, Chemists Club. Hobbies: motor boating, automobiles, fishing.

Frederick E. Breithut, prof. of Chemistry, College, City of N. Y., New York. Born: New York, Aug. 15, 1880. Educat.: B. S., C.C.N.Y., 1900; Sc. D., N.Y. U., 1909. Mar.: Florence Hastings, Paris, France, Mar. 20, 1924. Child.: one son. Bus.: Calco Chem. Co., consultant. Public Record: Major, Chem. Warfare Service; Chem. Trade Com., U. S. Dept. of Commerce; Mem.: American Chem. Soc., Soc. Chem. Ind.; Amer. Inst. of Chemists; Chemists Club, Civic Club; Chemistry Teachers Club, Brooklyn Chamber of Commerce. Author: The Engineer in Public Service; The Chemist in Public Service; Survey of N.Y.C. Municipal Service; Prices of Chemicals; Dye Industry of Europe; New Method of Measuring the Partial Vapor; Pressures of Binary Mixtures.

Arthur Douglas Chambers, mgr., mfg. div., Dyestuffs Dept., E. I. duPont de Nemours & Co., Wilmington, Del. Born: Woodstock, Ont., Can., May 4, 1870. Educat.: A. B.; Univ. of Toronto, 1892; Ph. D., John Hopkins, 1896. Mar.: May Fleming, Woodstock, Ont., July 21, 1897. Children: Ivan F., Ira D., Arthur E. Bus.: Chemist, Solar Refining Co., 1896-97; asst. supt. 1897-1905; supt., 1905-07, Ashburn Plant E. I. duPont de Nemours & Co., supt., 1907-15, Louviers Plant; Develop. Dept., 1915-17; asst. dir., Misc. Mfg. Dept., 1917-21; mgr., Mfg. Div., Dyestuffs Dept., 1921 to date. Mem.: American Inst. of Chem. Eng., American Chem. Soc., Wilmington Club, William Country Club, Concord Country Club.

Arthur Dodd Fuller pres., Dextro Products, Inc., Buffalo, and pres., Dextro Products of Penn. Inc., Phila. Born: Cleveland, Nov. 1, 1892. Educat.: Western Reserve Univ., Case School of Applied Science, 1915, A. B., B. S. Mar.: Phyllis C. Warner, June 19, 1916. Child.: three. Bus.: v. p., Glucol Mfg. Co., Cleveland, 1915-19; pres., Dextro Products, Inc., Buffalo, 1919 to date; pres., Dextro Products of Penn., Inc., Phila., 1927. Public Record: Voluntary Chemical Warfare Service during World War. Mem.: Amer. Chem. Soc.; Buffalo Athletic, Park, Niagara Tennis, Willowdale Country Club, executive board, National Adhesive Mfrs. Assn., 1927; treas. (1924), pres., (1925) Western N. Y. Tennis Assn. Hobbies: tennis, bridge, golf.

Harris G. Stephenson, retired, Miami, Fla. Born: Boston, Apr. 14, 1874. Educat.: high school. Mar.: Ethel Grant, Springfield, Mass., Dec. 31, 1905. Bus.: Kuttroff Pickhardt & Co., Sept. 1, 1891-Dec. 31, 1917; E. I. duPont de Nemours & Co., Feb. 1918-19, mgr., Boston Dyestuffs Sales Office Feb. 1919-Dec. 31, 1926, (retired N. Y. Dyestuffs Sales Office. Mem.: Arkwright Club, N. Y.; Old Colony Club, N. Y.; Salesmen's Assn.; Masons, Revere Lodge, Boston; Royal Arch Chapter, Commandery and Mystic Shrine.

Chemistry's Contribution to Automotive Transportation

An address by J. B. Hill, chief research chemist of the Atlantic Refining Company Philadelphia, before the Division of Industrial and Engineering Chemistry at the meeting at the American Chemical Society in Detroit, this week.

IN the early days of the automobile industry the prediction was made that of the three methods of automobile propulsion, electricity, gasoline and steam, the use of electricity would be limited to short radius operation, the use of the gasoline engine could not be expanded on account of the limited supply of gasoline, and the automobile of the future would be steam driven.

How far this prediction has fallen short of realization is due in no small part to the contribution of chemistry to gasoline. It is true that we are producing more crude petroleum than formerly and therefore should be producing more gasoline, but, during the last fifteen years when motor vehicle registration has increased twenty-two times crude petroleum production has increased only three times.

It is true again that due to various factors including more efficient fuel utilization gasoline consumption per car per year is only about half what it was in 1912, but the fact still remains that as against a 12 per cent yield of gasoline from crude in 1912, the yield last year was 37 per cent and is still climbing.

It is unfortunately impossible to claim all of this increased yield as a contribution to chemistry. Part of it is due to the fact that the gasoline boiling range has been lengthened out to include less volatile compounds. This change was stimulated by necessity and not by chemistry.

But even here chemistry has made its contribution in recent years through a study of the vapor pressure and equilibrium vaporization relations and by indicating how far the lengthening of the cut could be carried and the specifications which must be met to insure satisfactory service from such a wider boiling gasoline.

The second factor in the increased yield of gasoline is more directly attributable to the chemist and chemical engineer. It consists of the recovery of the very volatile portion of the gasoline which was formerly lost or wasted, the most important single item of this being the natural gasoline recovered from gas by compression or absorption processes. The natural or "casing-head" gasoline recovered from this source now represents approximately 10 per cent of the total motor gasoline production.

A third factor, also a chemical and chemical engineering development, is the design and adoption of improved fractionating equipment. With the old type of stills provided with inadequate means for fractionation of vapors, it was necessary to make the cut out of gasoline earlier than was otherwise required in order to meet the end point specification.

There remained in the crude two or three per cent of a material capable of being blended into satisfactory gasoline but which could not be distilled out as a close enough fraction to give the required endpoint when blended. It has been possible by fractional distillation

to include this portion in the gasoline cut.

One of the more recent increases in yield, for which the chemist is wholly responsible, is caused by the cutting down of refinery losses. A large part of the gasoline production was formerly treated with strong sulphuric acid for the primary purposes of improving the color and odor of the product and of eliminating gummy impurities.

The difficulty with the sulphuric acid treatment is that it not only removes the objectionable bodies but also attacks the unsaturated compounds such as the olefines. These compounds are not only harmless but have been shown, on the contrary, to be highly desirable.

Attempts to supplant the treatment with strong sulphuric acid with its consequent high loss, amounting frequently to several per cent, have resulted in numerous processes. These include, for example, dilute acid treatment, acid treatment at low temperatures, and a process of treatment with fullers earth in the vapor phase.

It is claimed that by this latter process the objectionable impurities are improved with a treating loss amounting to only a few tenths of a per cent and an important resultant saving. This general problem is still an active subject of petroleum research.

By far the largest item in the increased gasoline yield is cracking. It would be fruitless to claim the discovery of cracking as a contribution of chemistry. Probably the still-man back in 1861 who left his still and came back several hours later to find that cracking had taken place hardly knew what chemistry was.

At the same time, it has been the chemist and chemical engineer who have made cracking a commercial process and who have been responsible for the conspicuous success attained by the more modern cracking processes. A large amount of work has been carried out on the cracking reaction and has given valuable information on the nature of the cracking produced at different conditions of temperature, pressure, and time.

The above outline indicates the extent to which chemistry has contributed in increasing the quantity of motor fuel available for automotive transportation. Without this contribution it would have been quite impossible for the automobile industry to have reached its present proportions.

The contributions of chemistry to the quality of motor fuel have been equally important. In the early days when most of the gasoline was produced from Pennsylvania crude, when yield was no object, when automobile engines were low compression and when the only requirements to be met were color and gravity, quantity was a comparatively simple matter. Today conditions are reversed and the maintenance and im-

provement of quality demands the application of chemical knowledge.

The most discussed property of gasoline today is its tendency to detonate or knock and it is in this field that chemistry has made its most important contribution to motor fuel. This property has become of tremendous importance in recent years on account of the trend in engine design toward higher compression ratios.

Detonation has been shown to increase with compression and, whereas the old type of gasoline was satisfactory in the low compression ratio engines, it has become unsatisfactory in the modern engine. This condition has been even more emphasized in the aeroplane engine in which even higher compression ratios are used.

It was observed in the very early stages of the study of detonation that benzol in admixture with the gasoline lowered its tendency to knock. It was also observed that certain other substances such as aniline had the effect to an even more marked degree. A search was consequently made for a compound which could be mixed with gasoline in only very small proportions and which would have the effect of so lowering its tendency to knock that it would be used satisfactorily at much higher compression.

The work of Midgley and Boyd, resulting in the discovery of tetraethyl lead is classic. The commercial utilization of tetraethyl lead for high compression gasoline has already given an at least temporary solution to the detonation problem.

Following the observation that benzol imparted valuable anti-knock properties to gasoline it was observed that gasolines differed one from another in this property, the anti-knock quality being largely dependent upon the source.

It was observed, for example, that a gasoline produced from a typical California crude would withstand a considerably higher compression without knocking than a corresponding straight run gasoline from Mid-Continent crude and was, in fact, equivalent in anti-knock quality to be a blend of about 25 per cent benzol with the latter gasoline. It became further evident that cracked gasolines were more valuable in this respect than straight run.

These various observations led to an investigation of the detonation properties of the various series of hydrocarbons, the result of which was to show that the straight chain paraffin hydrocarbons were the worst offenders on knocking, that the olefines and naphthenes were much better and the aromatic hydrocarbons better yet.

In a still more recent and highly interesting piece of work, Edgar has gone even further to show that the isomeric paraffin hydrocarbons vary from one another in this property. The branched chain octane which he has developed is far superior even to benzol in its anti-knock quality.

Chemical effort is being vigorously directed, at present, along the lines of producing a gasoline which has in itself a high anti-knock value. The cracking reaction seems to hold in itself a means of accomplishing this end. It has been shown, for example, that by increasing the temperature of cracking a larger proportion of the series of hydrocarbons having a high anti-knock value may be obtained.

On account of this fact the whole subject of vapor phase cracking at much higher temperatures than the ordinary liquid phase processes has been reopened. Before anti-knock quality become important, vapor

[New Incorporations]

Anglo-Chilean Nitrate Sales Corp., Wilmington, Del., \$100,000
Guggenheim Bros., New York.
Silica Products Co., Wilmington, Del.; minerals.
Branfiran's Vejo Corp., New York; \$10,000; vegetable fats and oils.
Rubber Corp. of America, San Francisco, Cal., \$250,000; A. L. Clark, Chas. A. Erickson, Harry R. Buttmer, E. W. Lindman.
W. B. Varnish & Lacquers, New York, \$10,000.
H. & V. Chemical Corp., Brooklyn, N. Y., \$1,500; cleaning fluids.
Chemicals, Ltd., Montreal, Que., Can., \$250,000; Lawrence MacFarlane, Gregor Barclay, William B. Scott.
Smith Rowland Co., Suffolk, Va., \$50,000; manufacture fertilizer; R. B. Rowland, Jr.; R. B. Douglass.
Mulser Laboratories, New York; \$10,000; disinfectants.
Detectol Manufacturing Co., Inc., Carlstadt, N. J.; chemicals.
Stone-Set Chemical Co., Long Beach, Cal.; \$10,000; W. E. Anderson, P. R. Brain, F. D. Murray, William S. Martin.
Fred Pearson & Co., New York; 500 shares, common; textiles.
Campania Oil Co., New York; \$10,000.
Puritan Cleaners, New York; \$20,000; cleaners and dyers.
Gorjean Co., New York; \$10,000; silk, rayons.
Master Machinery Co., New York; \$10,000; chemicals.
Knopp Cotton Goods Co., New York; \$500,000; textiles.
Chancellor Cleaning & Dyeing Co., Newark, N. J.; \$125,000.
Desoto Chemicals, Inc., Wilmington, Del., \$50,000.
Arizona Soap Products Co., Wilmington, Del., \$50,000.
Nuenamel Paint Co., of Chicago, Dover, Del., \$100,000.
New Century Mfg. Co., Dover, Del., \$35,000; paints.
Pine Products Refining Corp., Wilmington, Del., 100,000 shares, no par, produce and prepare naval stores.
Kabrik Dyestuff & Chemical Corp., Brooklyn, N. Y., \$50,000.
Central American Naval Stores, Wilmington, Del., \$500,000; operate turpentine and rosin extractors.
Bates Products Co., Toronto, Ont., Can., \$100,000; manufacture soaps; Earnest C. Bogart, Ross Kennedy, Edith M. Bogart.
The Titanium, Ltd., Montreal, Que., Can., \$50,000 and 2,000 shares, no par; manufacture chemicals; Adrian Knatchbull-Hugasson, Lawrence Macfarlane, James B. Taylor.
Dominion Gelatine Ltd., Papineauville, Que., Can., \$100,000; manufacture glues and gelatine; Jean G. E. Pageau, Chas. A. Seguin, Thomas Charlebois.
Far East Silk Mills, New York, \$50,000.
Solid Carbonic Co., Ltd., of N. Y., Wilmington, Del., 100,000 shares, no par.
The River Feldspar Co., Middletown, Conn., \$100,000.
Two Brothers Chemical Co., Peabody, Mass., \$100,000; deal in javelle water shoe polishes, etc.
Gastonia Paint Co., Gastonia, N. C., \$100,000.
International Pine Products Co., Inc., Oakdale, La., \$100,000.
National Paint Products Mfg. Co., Ltd., Montreal, Canada, \$10,000.
Canadian Solvents Co., Ltd., Iberville, Quebec, Canada, \$49,000.
Knolloid Chemical Co., New York, \$5,000; Kohn & Nagler, 36 W. 44th st., New York City.
Philadelphia Varnish Co., Philadelphia, 300 shares no par stock; Corporation Guarantee and Trust Co., Wilmington, Del.

phase cracking had been practically dropped on account of mechanical difficulties and high gas loss and practically all of the commercial processes today are liquid phase processes operating at temperatures below 925 degrees F.

The aim of present investigations of cracking is to produce a gasoline which is not only sufficiently high in anti-knock value to enable the automobile manufacturers to carry their compression ratios to their desired limits, probably in the neighborhood of 6:1, but which will permit the badly knocking straight run gasoline which will also be produced to be blended with it and still give this desired result.

This problem is probably, at present, the most important for the improvement of the quality of motor fuel. While progress has been made, we must look to much greater progress in the future in this direction.

As a result of the scientific investigation of quality, gasoline is today judged by totally different standards than formerly. Instead of judging gasoline by color, gravity and doctor test, as formerly, the criteria of quality are rapidly becoming volatility and anti-knock value.

Probably the most vital problem for the application of chemistry in the future is that of producing a substitute for gasoline. While there is no immediate prospect of serious gasoline shortage, it is nevertheless certain

(Continued on Page 372)

The Eleventh Chemical Exhibit

This Years Exhibits by Foreign Chemical Manufactures Comprise the Main Deviation from the Program of Previous Expositions. Reservations to Date Assure a Record Number of Exhibitors

ARRANGEMENTS are nearing completion for the opening of the Eleventh Exposition of Chemical Industries on Monday afternoon, September twenty-sixth at the Grand Central Palace, New York.

This year's Exposition holds promise of being larger and better in every respect than any of the previous showings. On the first of September more than three hundred and fifty concerns had made reservations for booths and at the moment there are not more than a dozen booths remaining for occupancy. The principal deviation from the program of former exhibits is the admittance of foreign chemical exhibitors a move which has never before been sanctioned. This is more or less of an experiment and has drawn some well known European chemical houses. It is expected that following the lead of these many more foreign concerns will be represented at subsequent expositions.

While the exhibitors of chemical apparatus, supplies, etc., will outnumber the manufacturing chemical concerns, this latter group will be represented on a larger scale than in 1925. Among the more prominent chemical concerns having booths are: American-British Chemical Supplies, Inc., American Solvents Recovery Co., Atlas Powder Co., Celite Products Co., Cleveland-Cliffs Iron Co., Commercial Solvents Co., Darco Sales Corp., Eastman Chemical Co., Emery Candle Co., A. Gross & Co., Kentucky Alcohol Corp., Kuttroff-Pickhardt & Co., La Motte Chemical Products Co., Mathieson Alkali Works, Metasap Chemical Co., Miner Laboratories, Merck & Co., National Distillers Products Co., National Oil Products Co., Philadelphia Quartz Co., Selden Co., Sharples Solvents Co., Siemon & Elting, Sterling Products Co., Tennessee Copper & Chemical Co., Texas Gulf Sulfur Co. The apparatus, container and supply group contains practically every name of prominence in that branch of the industry. The U. S. Department of Agriculture will occupy a booth for the purpose of displaying the advances made in its field as relates to chemistry.

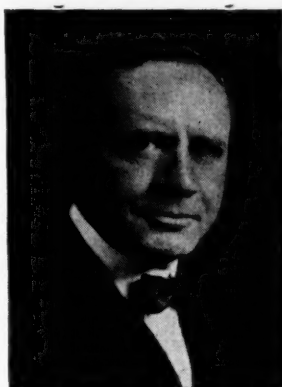
The banquet, always one of the high lights of every Exposition will be held this year on Wednesday evening, September 28 at the Hotel Roosevelt, with John E. Teeple as toastmaster. The list of speakers has not been compiled as yet, but will be announced at a later date. The banquet will be under the auspices of the Salesmen's Association of the American Chemical Industry represented by the following committee; Ralph E. Dorland, chairman, Dow Chemical Works, A. L. Benkert and F. P. Summers, Noil Chemical Works, Williams Haynes, publisher CHEMICAL MARKETS, William Mueller, Commercial Solvents Corp., Ira P. Mac Nair, Mac Nair-Dorland Co., and Chas. F. Roth, Exposition of Chemical Industries. The banquet is sponsored by the following societies:

American Ceramic Society, American Chemical Society—New Jersey Section, American Chemical Society—New York Section, American Electrochemical Society—New York Section, Chemical Warfare Association, Chemists' Club, Pressed Gas Manufacturers Association, Chlorine Institute, American Institute of Chemical Engineers, American Leather Chemists Association, Manufacturing Chemists

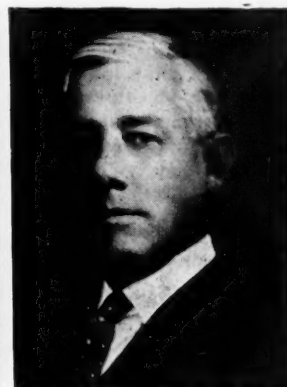
Association, Societe de Chemie Ind., Society of Chemical Industry, American Society of Testing Materials, American Association of Textile Chemists and Colorists, Synthetic Organic Chemical Manufacturers Association and the Technical Association of the Pulp and Paper Industry.

Of prime interest is the program as outlined for the students' course that is annually conducted in connection with the Exposition. Leading educational institutions are sending both students and members of their faculty to attend the Exposition both for the lectures during the students' course and the Exposition where a careful study of exhibits and practices will be discussed and in many cases, demonstrated.

One of the many interesting features will be exhibits of stainless steel and iron in the alloy section. These exhibits



John E. Teeple
Toastmaster



Ralph E. Dorland
Chairman, Banquet Comm.

will contain the latest developments in this branch of the alloys and the leaders will be the Central Alloy Steel Company, Vanadium Corporation of America, and the International Nickel Company. The appearance of fabricated stainless materials dates back only as far as 1912. The Krupps exhibited at the Gothenberg Exposition that year certain stainless articles of commerce manufactured from their highly alloyed nickel chrome steels. Along with the new alloy exhibits, The Brown Instrument Co. is exhibiting a new electric flow meter with an unusual basic principle and other special features of great practical importance to all industry where instruments of precision and measurement are used. The United States Government will have two very interesting exhibits. The National Safety Council will present in complete form the recently concluded exhaustive study of benzol and the toxicity of this solvent where used in products designed for manufacturing and domestic use.

In conjunction with the exposition the Technical Association of the Pulp and Paper Industry will meet on Wednesday, September 28th, at 2:00 p. m. in the conference room at the Exposition. The program will comprise a series of ten

minute addresses and will be under the chairmanship of Elmer C. Tucker, President of the Association. The addresses are as follows:

Pulp Washers and Stock Savers: (a) United Filters—R. C. Campbell, (b) Oliver Continuous Filter—Chas. Fuhrmeister, Jr., (c) Vallez Rotary Filters—A. H. Vallez.

Hydrogen Ion Control in Pulp and Paper Mills: LaMotte Chemical Products Co.—W. A. Taylor.

Evaporation in Chemical Pulp Mills: Ernest Scott & Co.—H. Austin.

Chromium Plating in The Paper Industry: Chromium Corporation of America—Hugh D. McLeese.

Door Equipment in Pulp and Paper Mills: The Dorr Company—A. Anable.

Smelting Furnace Lining: Alberne Stone Company—Mr. Bryant.

Daylight Illumination for Laboratories and Mills and Displays: Sunlike Illuminating Company—Walter N. Polakov.

Microscopical Examination of Pulp and Paper: Paper Structure and a New Form of Illumination—L. C. Foster (Bausch & Lomb).

Continuous Centrifugal for Pulp and Paper: Illustrated with Motion Pictures—Laughlin Filter Company—W. C. Laughlin.

Minerals for Paper Use: Available Deposits Located in Territory Tributary to Southern Pacific Lines—C. M. Redfern.

Outline of Student Courses

Below is given a detailed account of the proceedings of the student's course which will be held the entire week as indicated.

MONDAY—September 26th, 12:00 to 3:00 p. m. Registration: At the Information Desk in the Chemical Exposition in Grand Central Palace. This Desk is just inside the main entrance and to the right. Registration Cards will there be authenticated.

3:00 p. m. Addresses, "Welcome to Exposition": by Charles F. Roth, Manager. "The Organizations of Chemists and Chemical Engineers," by T. B. Wagner, President, The Chemists' Club. Announcements, Discussion of the Course and Division of the Student Body into Sections: by W. T. Read, Chairman of the Course.

TUESDAY—September 27th, 9:00 a. m. General Lecture, "Ethics and Ideals of the Chemical Profession," Arthur D. Little, Inc.

9:30 a. m. Separation of the student body into two groups,—

GROUP I This group will comprise students who have knowledge of elementary chemistry.

Disintegration: Crushing, Grinding, and Grading—Chas. E. Locke, Massachusetts Institute of Technology.

GROUP II This group comprises advanced students and those having a more extensive knowledge of chemistry and chemical engineering.

Disintegration: Crushing, Grinding, and Grading—S. B. Kanowitz, Raymond Bros. Impact Pulv. Co., New York.

Mechanical Separation: Separation of solids from Liquids: Filtration, Grading, Classifying, Settling, and Thickening—Arthur Wright, Filtration Engineers, Inc., New York.

Review and Discussion: 2:00 to 3:00 p. m. Group Conference between students of this group and exhibitors' representatives especially invited to reply to questions about the apparatus discussed in the above program.

3:00 to 5 p. m. Group Inspections of exhibits in charge of designated guides.

Mechanical Separation: Filtration—E. J. Sweetland, United Filters Corp., New York.

2:00 p. m. and Thereafter: Individual study by students of exhibits in particular subjects of research or upon the topics assigned by his own College Instructor or the Chairman of the Course. This study to include review of the

latest literature on the subjects in publishers' booths, exhaustive study of all the displays of the subject and detailed study of each. Thereafter, general study of all exhibits in preparation for the Report and Discussion on Saturday.

WEDNESDAY—September 28th, 9:00 a. m. General Lecture: "What the Chemist and Engineer Read," by H. C. Parmelee, Editor, Chemical & Metallurgical Engineering.

9:30 a. m. "Industrail Research," by F. C. Whitmore, Chairman, Chemical Division, National Research Council.

10:00 a. m. Separation of the Student Body into two groups,—

GROUP I Mechanical Separation: Thickening and Sedimentation—A. Anable, The Dorr Company, New York.

Centrifugals and Centrifuges—Arthur W. Hixson, Columbia University.

Dust Collectors—speaker to be announced.

Handling of Materials: Vertical, Lateral, and Horizontal Transportation—A. E. Marshall, Corning Glass Works, New York.

GROUP II Mechanical Separation: Centrifugals and



C. F. Roth



F. W. Paine

Managers Chemical Exposition

Centrifuges—speaker to be announced.

Air Separators—Harlowe Hardinge, Hardinge Company, New York.

Electrical Precipitation—P. E. Landolt, Western Precipitation Company, New York.

Handling of Materials: Conveying with Currents of Air—Wm. B. Spooner, C. S. Hallowell, Inc., New York.

2:00 p. m. and Thereafter: Individual and General Study—see program for Tuesday.

THURSDAY—September 29th, 9:00 a. m. General Lecture: "How the Products the Chemist Makes are Sold," by Williams Haynes, Publisher "CHEMICAL MARKETS."

9:30 a. m. Reading the Thermometers of the Chemistry of Business, "by Edwin E. Judd, Editor "Industrial Digest."

10:00 a. m. Separation of the Student Body into two groups:—

GROUP I Separation With Phase Change: Evaporation, Distillation, and Drying: Theory W. A. McAdams, Massachusetts Institute of Technology.

Practice: Construction and Operation of Apparatus—speaker to be announced.

Drying: G. W. O'Keefe, Filtration Engineers, Inc., New York.

Review and Discussion: 2:00 to 5:00 p. m. Group Conference and Inspections—see program for Tuesday.

GROUP II Separation With Phase Change: Thermodynamic and Mechanics Applied to the Fundamental (Continued on Page 370)

The Commercial Aspects of American Tung Oil

By B. F. Williamson

Tung [Production] in America will expand only if this new industry is found to be profitable. In this article a man closely associated with the development of the industry over a long period gives yields per acre in dollars and cents

IN the article published in CHEMICAL MARKETS on "Tung Oil in Florida" there appeared several points that could be elaborated so that one would understand what is being accomplished in this industry in a commercial way. Attention was called in that article to ten trees that were planted on the Experiment Station grounds. The former Director who planted these trees left the Department about six years ago. Five of the trees were planted on the Station grounds in 1912 and the other five in 1914. Practically no attention was given to these trees until the writer attempted to make the first plantings with a view of developing the industry. The only individual who took great interest in the trees up to that time was a German by the name of Umlauf who was an old gardener at that time in charge of the Station grounds. Umlauf died and left no records. The year before Umlauf died one of these trees produced 90 pounds of shelled nuts which is equivalent to a fraction over four gallons of oil.

Since the new director and his assistant came in one of these trees has produced 89 pounds of shelled nuts. These trees have undoubtedly reached their maximum production for the following reasons: These trees were planted 10 feet apart in the row and 16 feet from these trees is another row of citrus. The citrus draws very heavily on this soil. The soil is very light, sandy soil. The trees are now joining each other and being jammed by the citrus trees, so that their fruit head will not increase.

We have observed a number of other trees on the Experiment Station that have in a single year produced enough nuts to make 4 gallons of oil. These were random trees planted by men collaborating with the United States Department of Agriculture. These collaborators planted tung oil trees all the way across the continent as far north as the Carolinas and as far west as California.

Climatic conditions have shown that west of the Mississippi River these trees have not been productive, the rainfall being one of the factors. On the Pacific Coast rainfall averages, where these trees were planted, 16 inches per annum. Trees to do well require over 30 inches. The fruit did not develop where the rainfall was deficient. North of some warm spots in South Georgia, Alabama, Mississippi and Louisiana comprising rather small areas the trees have been affected both by cold weather and a deficient rainfall. A survey made by the Government showed the greatest yield and the greatest production after 20 years on the trees planted in the vicinity of Gainesville, Florida.

We have under observation not only the entire plantings of the Station, but has been made responsible for the plantings of over 2000 acres. The trees on the Sta-

tion grounds up to a few years ago received little or no attention or fertilizer. We find that a small amount of fertilizer used at the proper time will make the trees bear a good commercial crop each year. We observed this at five different points under varied conditions where for four years trees have produced a commercial crop each year while in the same locality only 30 to 40 feet away the trees receiving no fertilizer have produced alternate crops and in no year did the unfertilized trees produce as well as the trees fertilized each year. On a two year test which is being continued, 10c worth of fertilizer returned in value of oil at 10c per pound practically 40c.

We also have observations over four generations of a prolific tree showing over 98 per cent of the offsprings of this one tree produced the same characteristics both as to general height and heavy production and the parent. It is, therefore, reasonable to conclude that by taking the seed from prolific trees and properly fertilizing the offsprings, the characteristics of the tree are transmitted and we will be able to produce much larger yields than anything that has so far been obtained.

The recent article showed a picture of a tree that produced 390 fruits. This is equivalent to 5.1 pounds of oil and a residue of 9 pounds. Figuring the oil at 10c per pound and the residue at \$30.00 per ton or 1½c per pound would give you 64.5c per tree gross. All of our trees are planted in 30 foot rows 12½ feet apart in the row which is 116 trees to the acre. That would mean \$74.82 per acre gross, or if you figure the oil at 11c per pound, the present price, it would be \$116.23 per acre. Bear in mind that this tree is only 3½ years old and the trees do not get into full production until the eighth or tenth year. We purchased 1926 crop of nuts from 109 trees planted over 9 years ago by a man for fence posts. The yield was 5000 pounds of nuts in the shell or 3000 pounds of shelled nuts, the yield of oil in pressing 34 per cent—1020 pounds of oil, which at present market price 17c per pound for oil would be \$175.40. This is seven less trees that we plant per acre. In addition the yield of residue would be 1800 lbs. at 1½c per pound \$129.00, at 17c per pound \$202.40.

While it is not probable that we will get every tree to do as well as the 3½ year old tree above mentioned, a great many will and 50 per cent should, if the trees are properly selected and given the proper care. We do not expect the trees to be in commercial production until the fourth year.

The oil we produce is a much lighter color than the Chinese oil and is a neutral oil, whereas the Chinese oil

(Continued on Page 378)

Soy Bean Acreage 2,500,000 Acres

Although the soy bean came to this country many decades ago as an unknown immigrant, it only recently has won a recognized place in the cropping system of American farmers. Recent interest in the soy bean and its products together with the increased acreage devoted to it during the past decade indicate, according to W. J. Morse, forage crop specialist of the United States Department of Agriculture, that it is destined to become a crop of considerable economic importance in the United States.

In 1917 less than 500,000 acres were devoted to soy beans for all purposes. In 1924 there were 2,500,000 acres, of which about 1,000,000 acres were grown for hay, about 1,000,000 acres for pasture and silage, and more than 500,000 acres for seed production. About 2,283,000 bushels of seed were produced in 1917, while in 1924 nearly 10,000,000 bushels of seed and 1,360,000 tons of hay were produced. Although the increase in acreage has been general over the eastern half of the United States, the most marked increases have been in the Corn Belt States and in a few of the Southern States.

The soy bean can now be grown successfully in any climate suitable to corn or cotton, says Mr. Morse. The department during the past 10 years has developed, through introduction and by breeding methods, varieties which have extended the range of profitable soy-bean culture far beyond what were at first considered its limits. The principal uses of the soy bean are for hay, pasture, silage, grain, oil and oil meal, and human food. With such a wide range of uses the production of the soy bean is no longer localized and its increasing importance is assured.

[The Industry's Bookshelf]

DIRECTING SALES. By H. C. Bonney, Vice-president The Rubberoid Co. Cloth bound, 121 pages. Published by Ronald Press Co., New York.

This book presents a detailed view of the fundamentals, big questions and sales problems likely to concern a sales manager or anyone potentially interested in that capacity. It points to accomplishments derived from modern methods of sales by comparing them with the former inefficient and unscientific methods and illustrates how successful systems may be devised. Advice is given concerning the training and control of sales forces and the aid given regarding the fundamentals of advertising, which, viewed from a seller's standpoint, are indispensable.

THE HISTORY OF THE INCANDESCENT LAMP. By John W. Howell and Henry Schroeder. Cloth bound, 208 pages. Published by The Maqua Co., Schenectady, New York.

As interesting treatise on the history, romance and development of the incandescent lamp since its inception in 1879 by Mr. Edison. It contains a non-technical description of the construction and inner workings of our lighting system and portrays chronologically each developing step in producing the present high state of perfection and efficiency in the electric light field. Its relation to photometry is clearly depicted.

DEVELOPING AND MANAGING SALESMEN. By Ray Giles, The Blackman Co. Cloth bound, 216 pages. Published by the Ronald Press Co., New York.

This book is a medium for developing and maintaining a close personal contact between salesmen and their superiors. The author's material is composed from actual experiences and differs from the usual, dry, sales psychology. The sales results of many of these incidents are astounding and contain valuable suggestions not only in bringing together a more personal relationship be-

[Foreign Trade Opportunities]

Chemicals	25671	Cairo, Egypt	Agency
Chemicals, heavy	25644	Porto Alegre, Brazil	Agency
Chlorine, liquid	25665	Helsingfors, Finland	Agency
Fuzes	24630	Brussels, Belgium	Agency
Paints	25644	Porto Alegre, Brazil	Agency
Paints, varnishes, and lin-		Traiguén, Chile	Purchase
seed oil	25703	Basel, Switzerland	Purchase
Polish, stove, best quality,			
5,000 pounds	25660	Stockholm, Sweden	Agency
Rosin	25648	Milan, Italy	Agency
Rosin	25669	Sao Paulo, Brazil	Agency
Rosin	25670	Hamburg, Germany	Agency
Rosin	25673	Porto Alegre, Brazil	Agency
Tanning chemicals and			
leather finishes	25667	Hamburg, Germany	Agency
Turpentine	25673	Traiguén, Chile	Purchase
Turpentine	25703	Mannheim, Germany	Purchase
Varnish	25666		and agency
Varnishes, nitrocellulose,			
for automobile, coach			
work, etc.	25661	Barcelona, Spain	Purchase
Chemical products	25959		and agency
Chemicals, fine	25964	Lisbon, Portugal	Purchase
Fertilizers, mixed	25976	Florence, Italy	Agency
Naval stores	25965	Melbourne, Australia	Purchase
Sulphur	25966	Copenhagen, Denmark	Agency
Varnish, insulating	25961	Hamburg, Germany	Agency
		Johannesburg, South	
		Africa	Purchase
Borax, alum, chlorate of	26819	Rio de Janeiro, Brazil	Agency
tass, gum lac, gum ara-			
bic.			
Casein	26853	Antwerp, Belgium	Agency
Chemicals	26882	Rio de Janeiro, Brazil	Agency
Chemicals, industrial	26853	Antwerp, Belgium	Agency
Chemicals, textile, aniline	26854	Prague, Czechoslo-	Agency
dyes.		vakia.	
Fish guano	26868	Hamburg, Germany	Both
Horn and hoof scrap	26869	Bernburg, Germany	Purchase
Paints and oils	26819	Rio de Janeiro, Brazil	Agency
Phosphate rock, crude	26870	Hamburg, Germany	Both
Rosin	26819	Rio de Janeiro, Brazil	Agency
Rosin	26882	Rio de Janeiro, Brazil	Agency
Rosin	26855	Antwerp, Belgium	Agency
Rosin	26857	Hamburg, Germany	Agency
Rosin and turpentine	26856	Hamburg, Germany	Agency
Varnish	26882	Rio de Janeiro, Brazil	Agency
Ammonium sulfate, caustic	26919	Hamburg, Germany	Agency
soda borax			
Casein products	26917	Melbourne, Australia	Agency
Chemicals, fertilizers, ...	26927	Brussels, Belgium	Agency
dyes.			
Naval stores	26939	Copenhagen, Denmark	Agency
Rosin	26920	Vienna, Austria	Agency
Rosin, white lead, zinc	26921	Saale, Germany	Agency
oxide, turpentine.			
Rosin, turpentine	26922	Hamburg, Germany	Agency
Rosin, turpentine	26927	Brussels, Belgium	Agency
Salts, chrome, sulfur	26920	Vienna, Austria	Agency
Sulfur	26927	Brussels, Belgium	Agency
Ammonia, sulphate	27007	Hamburg, Germany	Agency
Chemicals	27002	Capetown, South Af-	Agency
		rica.	
Chemicals	27044	Rosario, Argentina	Agency
Chemicals, textile	27010	Dresden, Germany	Agency
Oils, essential	27000	Hamburg, Germany	Purchase
Oils, essential	27001	Hamburg, Germany	Purchase
Oils, essential, especially	27003	Berlin, Germany	Purchase
hemlock and spruce oil.			
Pigments and leather dyes	27056	Tel-Aviv, Palestine	Agency
Polishing materials, stone	27020	Prague, Czechoslova-	Agency
		kia.	
Rosin and turpentine	27008	Hamburg, Germany	Agency
Soda, caustic	27006	Sao Paulo, Brazil	Agency

tween the sales executive and his men but also between salesmen and buyers.

STATISTICAL MECHANICS WITH APPLICATIONS TO PHYSICS AND CHEMISTRY. By Richard C. Tolman, Ph.D., Professor of Chemistry and Mathematical Physics, California Institute of Technology. Cloth bound 334 pages. Published by Chemical Catalog Co. Inc., New York.

The author has compiled in a systematic manner, the theories of statistical mechanics. As an introduction and foundation to this work, the text includes the elements of classical and quantum mechanics. One chapter is devoted to a new treatment of the principle of microscopic reversability and other original subjects including the deduction of a general equipartition law and

(Continued on page 380)

[News and Markets Section]

Chemical Exports Gained Slightly in July

Value Was \$16,427,000, While Imports Increased to \$15,666,000—Drop in Value of Naval Stores, Due to Lower Prices—Exports of Coal Tar Products Decrease Owing to Decline in Exports of Benzol—Imports of Colors Larger in July, 1927, Than a Year Ago—Exports of Industrial Chemicals Show Losses.

(Special to CHEMICAL MARKETS)

Washington, D. C., Sept. 7—United States exports of chemicals and allied products in July, advanced only slightly (0.3 per cent) from \$1,374,000 in July, 1926, to \$1,642,700 in July 1927, while the imports gained 12 per cent from \$14,082,000 to \$15,666,000 according to the Chemical Division, Department of Commerce. Exports surpassed imports by nearly \$800,000. With the exception of a decided decline in foreign sales of coal-tar products and the important increases in purchases of fertilizers from foreign countries, the July trade recorded the general trend evident the current year with perhaps a little more emphasis on some commodities. Price accounted for some of the differences, particularly in the naval stores group. The tendency, however, was downward throughout the trade, rather than upward, with the few increases which did occur being sufficiently large to offset the decreases.

Lower prices of naval stores accounted for the 15 per cent drop to \$3,914,000 in the exports of naval stores since actually larger quantities were exported the current July than during July, 1926. Rosin increased one-eighth and turpentine one-third in quantities while values declined. Figures for exports of these commodities in July, 1927, being 146,600 barrels of gum rosin and 13,200 barrels of wood rosin, valued at \$2,357,000 and \$175,000 respectively, and spirits of turpentine, 2,120,000 gallons, valued at \$1,216,000.

The only important incident of the imports of gums resins, and balsams, valued at \$2,108,000, 9 per cent less in July, 1926, was the decidedly small amount of camphor which was imported.

Receipts of synthetic camphor once more exceeded those of the natural product, figures for which were 225,800 pounds, valued at \$94,500, against 68,600 pounds valued at \$39,800 for the natural.

Imports of Chinawood oil equalled 8,483,000 pounds, valued at \$1,235,000.

Sulfur exports showed an enormous increase, but this was due to the unusually large amount exported the current July, figures for which were 69,900 tons, valued at \$1,413,000.

Exports of coal-tar products took a decided drop in July, both from the preceding month's figure and from last year's figures. This decided decline was due primarily to the loss in benzol.

Exports of benzol amounted to 334,000 gallons, valued at \$97,000.

Other important products of the coal-tar group, colors, dyes, and stains, likewise showed a rather decided falling off to 1,525,800 pounds, valued at \$331,400. A reduction of nearly one-fifth was made in the incoming shipments of coal-tar products, which were valued at \$1,542,000 for July.

Receipts of creosote oil were much smaller than the preceding July and were valued at \$1,085,000 (6,853,000 gallons).

In contrast to the exports, the imports of colors, dyes, and stains were 63 per cent more than in the preceding July, or \$302,000 (278,000 pounds), a figure only slightly under the value of the exports.

Despite the apparent increase of 23 per cent in exports of industrial chemicals which attained a figure of \$3,220,000, the majority of the commodities of this group showed marked losses. Dextrine, glycerin, and borax were all up the current July, and were the exceptions. As has been evident during the year, the improvement in the group is attributable to a greater demand for disinfectants, insecticides, fungicides, and the similar preparations and the "all other" class made up largely of compressed gases. Over half a million dollars worth (2,300,000 pounds) of disinfectants and similar preparations were shipped to foreign countries in July, 1927. The bulk of these exports were comprised of household insecticides, and disinfectants.

Not only were the imports of in-

dustrial chemicals valued at \$2,155,000, 16 per cent under the July, 1926 figure, but also were over \$1,000,000 less than the exports. Slightly smaller amounts of the majority of the items of the group entered the United States the current July than in July, 1926. Some of the more important chemicals to show marked losses were: Barium compounds, calcium carbide, cobalt oxide, copper sulfate, glycerin, and sodium nitrate. Neither citric acid nor citrate of lime was imported in July, 1927.

Foreign demand for American pigments, paints, and varnishes held at about the same rate in July 1927 as in the four preceding months but were about 18 per cent higher than in July 1926, and amounted to \$1,815,000.

In the fertilizer group, exports of which declined 9 per cent to \$1,519,000 but advanced 60 per cent in quantities to 138,000 tons, phosphate rock showed the most encouraging change with 109,000 tons, valued at \$562,000 shipped abroad. The quantity of ammonium sulphate shipped was one quarter under that of July, 1926, and amounted to 12,700 tons, valued at \$605,000 for the current month.

Imports of fertilizers represented an increase of 38 per cent in quantity but 77 per cent in value or a total of 151,600 tons, and \$5,020,000. The most important advances were made in imports of calcium cyanamide to 8,100 tons valued at \$335,900, sodium nitrate to 54,900 tons, valued at \$2,369,000 ammonium-sulphate-nitrate to 2,000 tons, \$123,800; chloride of potash to 23,900 tons, \$865,500, and crude sulfate of potash to 10,600 tons, \$458,700.

YAVAN GLUE DECISION APPEALED AS INCORRECT

Washington, D. C., Sept. 7—E. W. Camp, Commissioner of Customs has requested the Assistant Attorney General at New York to file an appeal with the United States Court of Customs Appeals in connection with the decision of the Customs Court in which it held that certain Yavan glue which had been classified as an alcoholic compound under paragraph 24 of the tariff act to be properly dutiable as a coal tar product at the rate of 7c per pound and 45 per cent ad valorem under paragraph 28 of the act.

CHILE'S NITRATE LOSS*(Special to CHEMICAL MARKETS)*

Washington, D. C., Aug. 31—The close interrelation between nitrate production and the economic well-being of Chile is indicated by the rise and fall of imports into the country in direct ratio with the prosperity or depression in that industry.

According to a report compiled in the Division of Regional Information of the Commerce Department, nitrate production and sales during 1926 decreased markedly, especially during the last half of the year. Total production during that period fell to 1,615,545 metric tons compared with 2,518,933 during 1926. The decline continued during the early part of 1927, and Chilean commerce suffered accordingly.

Comparison of imports of principal articles entering into Chilean commerce during the period from January to April, inclusive, 1927, with imports during the corresponding period in 1926 discloses a market decline in nearly every article, total imports of these articles in 1927 amounting to \$16,364,900 compared with 1926 imports of \$30,218,850. Exports of nitrate during the same period fell from 7,252,598 metric quintals valued at \$38,031,912 in 1926 to 5,993,745 metric quintals valued at \$31,633,993 in 1927. The principal cause of the decline in the consumption of Chilean nitrates is the growing competition from synthetic nitrates.

The Chilean Government is fully cognizant of the condition of the industry and is taking steps to aid it, having substantially reduced railroad rates for nitrates, petroleum, and coal on the nitrate railroad.

CHEMICAL EMPLOYMENT DECREASED DURING JULY*(Special to CHEMICAL MARKETS)*

Washington, D. C., Sept. 7—There was a decrease in employment and payrolls in chemical plants in July as compared with June according to figures just available through the Bureau of Labor Statistics, Department of Labor.

Reports were received by the Bureau from 130 chemical plants who gave their June employment at 31,888 decreasing in July to 31,510, a decrease of 1.2 per cent. The payrolls in these identical plants also decreased from \$898,076 in June to \$852,002 in July, a decrease of 5.1 per cent.

Swansea Dye Works, Fall River, has begun building a new dyehouse to be 100 by 46 feet. The present dyehouse will be used for other purposes when the new unit is completed. Additional workers will be employed.

FRANCO-GERMAN PACT ON ACTIVATED CARBON

Competition offered by synthetic methanol has resulted in a German-American and Franco-German agreement on the exploitation of activated carbon, the Department of Commerce has just been advised by the Trade Commissioner at Berlin, W. T. Daugherty.

The Department's statement follows in full text:

It is reported in Germany that an American corporation has contracted with I. G. Farbenindustrie A. G., the Metallbank & Metallurgische Gesellschaft, Frankfurt-on-the-Main, and the Aussiger Verein (Czechoslovakia) to exploit German patents on activated carbon in the United States. At the same time, the French Societe de Charbons Actives Urbaine acquired rights on German patents for exploitation in Europe, outside of Germany.

It will be recalled that the Verein fuer Chemische Industrie, Frankfurt-on-the-Main (wood distillation) recently entered into an agreement with the Dutch Allgemeene Norit Maatschappij on activated carbon. It is hoped that the extension in the number of its products will partially offset the business lost through the competition encountered from synthetic methanol.

National Paint, Oil and Varnish Association will provide a special program for the ladies attending the fortieth annual convention at the Ambassador Hotel, Atlantic City, Oct. 26-28. The Ladies' Golf tournament to be held at the Seaview Golf Club on Thursday, Oct. 27, is one of the outstanding features, but bridge, dancing, teas, luncheons, the president's reception, and the annual banquet will provide pleasure, both for the golfers and the non-golfers.

Dr. Henry G. Knight, Dean of the College of Agriculture and director of the Experiment Station of the University of West Virginia, has been appointed chief of the new bureau of chemistry and sons of the United States Department of Agriculture by Secretary Jardine. He will assume his new duties about October 1.

K. F. Griffith, one of the oldest members of the Chicago Board of Trade, and father of K. F. Griffith, Jr., of K. F. Griffith & Co., and also of Fred W. and Melville O. Griffith, of the Standard Wax Co., died in Chicago, on Aug. 3.

B. P. Steel, Michigan Alkali Works, has been transferred to the Chicago office of the concern in charge of special alkali contract sales.

GASOLINE MORE VOLATILE*(Special to CHEMICAL MARKETS)*

Washington, D. C., Sept. 7—The motor gasoline being marketed in the United States this summer is slightly more volatile than that sold a year ago, according to the United States Bureau of Mines, which recently conducted its sixteenth semi-annual motor gasoline survey. The general tendency toward the marketing of a standardized product continues to be manifested. Until recent years there has been a distinct difference between "summer" and "winter" gasoline, that marketed during the summer being less volatile than that sold during the winter. This summer the difference between "summer" and "winter" is shown only in the lower end of the distillation range while the upper end is more volatile than for last winter.

The cities in which gasoline samples were collected and analyzed in the course of the sixteenth semi-annual motor gasoline survey were New York City, Washington, Pittsburgh, Chicago, New Orleans, St. Louis, Denver, San Francisco, Bartlesville, Okla., and Laramie, Wyo. Detailed results are given in Serial 2827, copies of which may be obtained from the Bureau of Mines, Washington, D. C.

FERTILIZER MERGER

Manufacturers of nitrogenous fertilizers in Czechoslovakia have formed a joint sales organization, which began operations in Prague on July 1. The list of members is as follows: Mining and Smelting Co., Vitkovice Mining and Smelting Co., Coke Factories of Ferdinand Northern Railway, Black Coal Mines of Orlova-Lazy, Larisch-Moennich Mines in Karvinna, Jan Wilczek Mines in Silesian Ostrava, Coke Factory of the Vaclav State Mine, Mannesmann Factories in Chomutov, Weinmann Factories in Svotec, Draslavka (Foash Factory) in Kolin, Gas Works of the City of Prague in Michle. The most important member of the new organization is the factory which is now under construction at Marianske Hory to operate the Claude process and which is expected to begin operation at the end of the year.

American Trust Co., receiver for Bristol Mfg. Co., Bristol, Conn., will sell the plant, buildings and other real estate of the company at Plainville, Conn., at public auction Sept. 9. Bristol Manufacturing Co. was a large producer of knit goods for nearly a century, with plants at Bristol and Plainville. The Bristol plant was sold by the receiver some time ago.

A. C. S. COUNCIL REJECTS BERTHOLETT MEMORIAL

Detroit Meeting Does Not Sanction Participation by Society—George D. Rosengarten Presides at Initial Meeting—Establishment of Chemical Economics Section Approved.

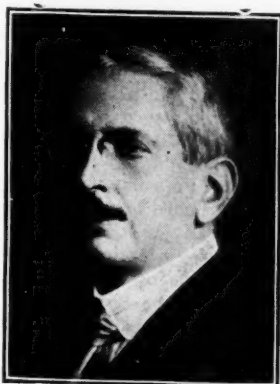
The Maison de Chemie, launched in Paris as a memorial to Bertholett came up for discussion at the Council Meeting which opened the Fall Meeting of the American Chemical Society at Detroit on Monday last. George D. Rosengarten, president of the Society presided at the meeting of the council, and Charles L. Parsons, secretary of the Society read the resolutions.

The council with reference to the Maison de Chemie, declared that in the opinion of the American

by the Council. This came as a result of the suggestion offered by Williams Haynes, publisher of CHEMICAL MARKETS, who emphasized the importance of impressing the chemist with an increased appreciation of the commercial side of all branches of chemistry. This section will have its first symposium at the Fall meeting of 1928.

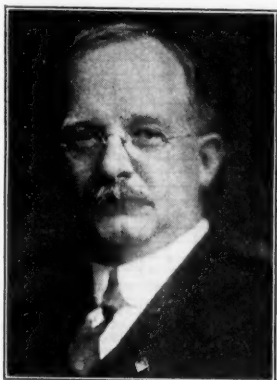
Plans for the further development of Division of Chemical Education were discussed by the council, and at the suggestion of the directors the plans were returned to division for perfection of the details.

Milwaukee was selected by the council as the meeting place for the Spring meeting of 1928.



Dr. George D. Rosengarten

Chemical Society, the move to establish through diplomatic channels and proceedings, any international scientific chemical headquarters was unwise; and that any such movement should come from the chemists themselves, and not be local-



Chas. L. Parsons

ized in any country. The Society, therefore, will as a body officially participate in the Maison de Chemie but to these objectionable features.

Establishment of the Section of Chemical Economics was approved

CANADA SULFURIC ACID OUTPUT 108,230 TONS

(*Special to CHEMICAL MARKETS*)
Montreal, Que., Sept. 3—Eight plants manufacturing sulfuric acid in Canada in 1926 produced 108,230 tons, valued at \$1,306,254, according to Dominion Bureau of Statistics figures. Of this, 28,137 tons were exported, while 53 tons were imported. Two of the firms mentioned used the acid for application to sulfate of ammonia. Four manufactured the acid for commercial purposes. One firm made it for use in its own metallurgical works, and one made sulfuric acid for use in the preparation of superphosphates.

Canadian Solvents Co., Ltd., has been organized with capital \$49,000 and plant at Iberville, Quebec, to manufacture, import and deal in chemicals, solvents and other products. The organizers are W. J. Kavanagh, sales manager; Nicholas Allen, soap manufacturer; and J. Ledone, all of St. John's Quebec.

Washington, D. C., Sept. 7—July production index number for the chemical industry was 187 compared with 184 for June and 177 for July of last year taking 1919 at 100 per cent according to the Department of Commerce.

A. Stanley Lucas was elected president of Alston-Lucas Paint Co., Chicago, to succeed his father, the late A. J. Lucas, at a meeting of stockholders Aug. 15.

SALESMEN'S ASSOCIATION ANNOUNCES NOMINATIONS

Members of Salesmen's Association of the American Chemical Industry are now balloting for officers for the 1927-1928 club year. The following nominations have been forwarded to members. For president, Robert J. Quinn and Howard S. Nieman; first vicepresident, H. B. Prior, F. M. Fargo; second vicepresident, P. E. L. Shattuck, Jr., Wm. Mueller; third vice-president, Fred A. Koch, Chas. A. Mace; secretary-treasurer, A. L. Benkert; two members of the executive committee will be chosen from the following: Victor Williams, W. O. Thompson, Ira MacNair, John Boyer. Ballots must be in by Sept. 12.

PATENT REISSUE REFUSED

Reissue application for patent 16,709 for recovery of oxides of nitrogen in sulfuric acid manufacture were refused by the Patent Office "because the claims were directed to a different species from that claimed in the original patent". The examiner in chief says:

"In the manufacture of sulfuric acid by means of a nitrogen-oxygen compound, the process of recovering nitrogen oxides from the exit gases of a sulfuric acid-fed Gay-Lussac tower, which comprises substantially completely removing the sulfur dioxide present in such gases, then oxidizing the lower oxides of nitrogen, then absorbing the higher oxides of nitrogen".

Charles Stewart, Canadian Minister of Mines and Dr. Charles Camsell, deputy minister have sailed for Europe. Mr. Stewart will represent the Canadian Government at the League of Nations Conference at Geneva. After the sessions of the conference, Mr. Stewart and Dr. Camsell will visit many cities of England and Germany to investigate progress made the last few years in the treatment of lignite and bituminous coal for the recovery of by-products. From the bituminous coal and lignite occurring in Canada Mr. Stewart believes large chemical industrial plants may be built up.

Always Ready Products Co., Williamsport, Peru, has been cited by Federal Trade Commission for alleged unfair trade practices in advertising its battery solution.

National Paint Products Mfg. Co., Ltd., has been incorporated in Montreal, and will open for business at 518 St. Catherine st. West, capitalization \$10,000.

ALCOHOL IN ENGLAND

Alcohol motor fuel production in England is not likely to amount to much, according to Trade Commissioner Fox, London. In a report just issued by the Director of Fuel Research, Department of Scientific and Industrial Research, it is stated that the commercial possibilities for the production of alcohol from sugar-containing and other materials are being explored by industry, but "it seems clear that the raw material in this country suitable for commercial treatment will be so restricted in quantity that only an insignificant fraction of the total requirements of motor fuel can ever be obtained in this manner." Research work on the production of power alcohol is to be abandoned as the cost is considered too great compared with gasoline. Official conclusions as to the possibilities for power alcohol production in the United Kingdom are confirmed by private investigators, Trade Commissioner Fox states.

Michigan Labor Commission has mailed to manufacturing concerns in this state new rules covering the use of spray painting, as a result of the Briggs Manufacturing Co., fire this spring. Factories are required to build metal fireproof booths with proper means of exhaust, equipped with selfclosing fire resistive doors. Proper ventilation, the abolition of excessive mist and vapors, flames, lights, fires or spark-emitting devices in booth where the spraying is done are also required.

Dr. Terlinck, of St. Amand-les-Eaux (North France) says that the new vehicle discovered by him is absolutely resistant to chemical attack by dehydrating agents such as sulfur chloride, and sulfuryl chloride. He has found the correct operating conditions whereby chlorides can be made to react upon anhydrous sodium acetate with the production of excellent yields of acetic anhydride of a high degree of purity and without there being any of the undesirable secondary reactions.

Shipment of 125 tons of felspar from a deposit on Falcon Island in the Lake of the Woods, Ont., has been made to Winnipeg where it will be tested by the Winnipeg Roofing Co., to ascertain its value for the manufacturing of pottery.

Paint Pigment Co. of America, Clinton Park, Knoxville, Tenn., leased more than 100 acres of ore land at Madisonville, Tenn.

Cotton Oil Advances on Bullish Report

The following market report and chart by W. A. Storts of Edw. Flash Co., are a resume of the cottonseed oil position for August.

August 27, 1927.

Census report indicated July consumption refined oil as expected. Total consumption refined oil for season aggregated 3,560,705 bbls., establishing a new record. Production was proportionately greater, resulting in visible supply and carryover, August 1st, of 1,042,000 bbls. Refined oil reducing the seed, crude and refined, reported by Census Bureau, to basis of 400 lb. barrels refined oil.

Statistically, such a ponderous carryover should have bearish influence, but, as one firm reportedly held about 60% of same, the situation was converted to a bullish position, temporarily, anyway.

The glorious crop prospects of early July, on account of weather conditions, weevil and other insect ravages, have become most deplorable, at present many only estimating little over 12 million bale production for this growing season. Much, of course, will depend upon next few weeks, as now, from all reports, cotton is in a very critical stage and final yield could easily

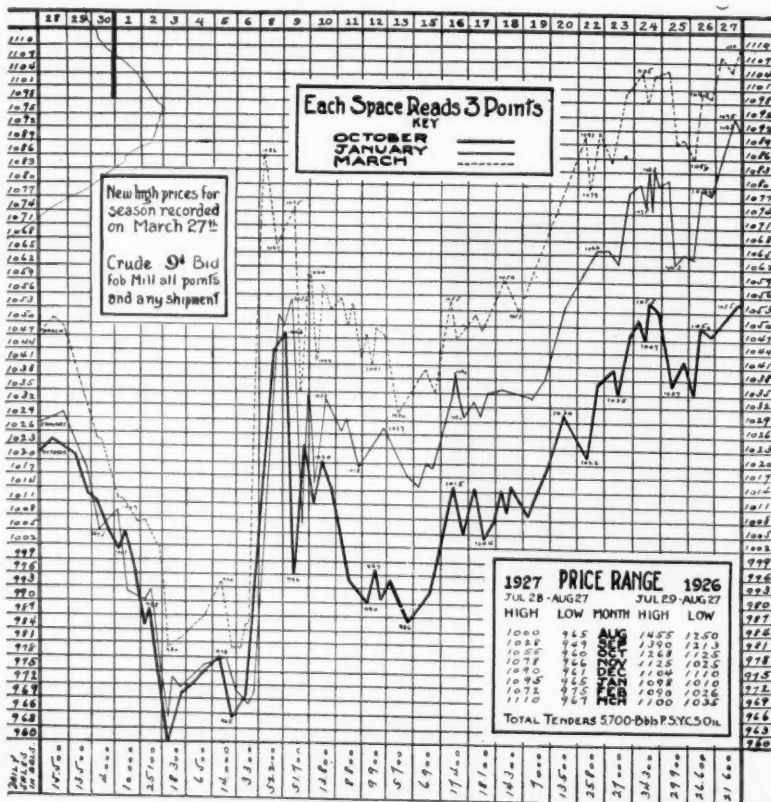
be considerably over, or under, present estimates.

The concentrated holding of the major part of the carryover, August 1st, in connection with the bullish crop news since then, has resulted in a very substantial advance in prices and at present it looks as if prices will continue to rise until the bullish cotton sentiment has abated.

Early this week crude sold 9 1/4c Texas, while bleachable, New Orleans "futures" market was 50 to 70 points higher, August, September, October deliveries, barely cost of crude plus freight, and is another substantiation that form of contract has very little to do with market movements and such inconsistencies are due, exclusively, to speculative influences beyond anyone's control.

While from ginning returns, cotton is moving early, so far there is very little early crude available. We have heard of no sales over 9 1/4c fob mill so far.

Very heavy tenders September oil will be made on Monday, probably resulting in the widening of differences between September and later months, but the indications are that these tenders will move into consumptive channels without creating much distress.



[The Industry's Finances]

MATHIESON ALKALI DECLARES \$1.00 DIVIDEND

Business Shows Increase Over Last Year—California Ink Refinancing—Canadian Standard Chem. Co., Makes Changes—Commercial Solvents Dividend.

Mathieson Alkali Works declared regular quarterly dividends of \$1 a share on common and of 1¾% on preferred, payable Oct. 1 to holders of record Sept. 16. Following the meeting of the directors, E. M. Allen, president, stated the company's current volume of business is running well ahead of last year and the prospects for the coming months are excellent.

At a recent gathering of the representatives of Mathieson from all parts of the country, Mr. Allen stated that the utmost optimism was expressed in regard to current conditions and future prospects. Collections are good, prices are firm, demand continues ahead of last year and there is no reason to believe that 1928 will not witness a continuation of the favorable conditions. The excellence of the company's operating units combined with the diversification which Mathieson has attained, places the company in a favorable position to take advantage of the satisfactory situation that now exists, Mr. Allen said.

Arrangements have been made for recapitalizing the California Ink Company, Inc., San Francisco, the plan involving the retirement of the present issue of 7 per cent preferred stock and the issuance of 40,000 shares of Class A stock at \$21.50 share in a new company. The California Ink Company has been engaged in the manufacture of printing inks and colors for thirty-seven years and has a modern plant in the suburban city

of Berkeley. Max M. Cohn, chairman of the board of the Illinois-Pacific Glass Works, will be made chairman of the board of the ink company.

Federal Graphite Co., care of John D. McCullough and John Lewis, First National Bank Building, Birmingham, Ala., (recently organized by two parties noted with capital of \$100,000) has taken over property in the vicinity of Anniston, Ala., and is reported to be planning for the early development of more than 500 acres of mineral lands. Complete equipment will be installed to develop an output of more than 500 tons per week. Plant machinery refining service is also under consideration.

Changing conditions in world markets have made necessary the financial reorganization of Standard Chemical Co., Ltd., Canada, which virtually controls the wood distillation industry in the Dominion. The real reason for this step is undoubtedly the decreasing export demand owing to competition of German synthetic methanol. The company has been compelled to dismantle its plants at Sault Ste. Marie, Thornbury, Cockshire and Weedon, Ontario.

H. Tyree Chemical Co. organized under the law of Delaware with authorized capital of 5,000 preferred shares, \$100. each, and common 100,000 shares, no par, has designated the Secretary of State, New York, to represent this company in accordance with statutory requirements.

Trump Rubber Co. has purchased controlling interest in Eclat Rubber Co., which manufactures hose and tube machine products. Eclat has factories in Akron and Kent, Ohio.

International Combustion Engineering Corp., incorporated under the laws of Delaware, has increased its capitalization from 750,000 to 1,200,000 shares, no par.

Goetz Dye Works, Brooklyn, a New York State corporation has increased its capitalization from \$5,000 to \$35,000.

CELANESE EXPANSION

The production of the Celanese Corp. of America is far oversold for eight months of the current year, according to the "Wall Street News". The corporation is now working on an expansion plan which will give Celanese an annual output over 300 percent in excess of the 1926 production.

To finance this expansion, the common stock which has been selling on the New York Curb Market has been increased from 220,000 shares to 1,000,000 shares outstanding.

Earnings of the organization for the eight months of the present year are running at a rate better than three times that of a corresponding period last year, and a further substantial increase is expected in the remaining months. Net income for the 12 months of 1926 was at the high figure of \$908,913, compared to \$24,260 in a similar period in 1925.

The balance sheet, as of Dec. 31, 1926, showed current assets at \$3,088,662, and current liabilities at \$367,200, a ratio of 8.04 to 1. Cash was listed at \$217,461, and marketable securities and call loans totaled \$1,055,115. Accounts receivable were \$568,440, inventories \$1,142,463, and accounts payable \$210,832. Total assets at the end of 1926 revealed an increase of \$2,232,463 over \$9,823,713, the amount disclosed Dec. 31, 1925.

Meeting of stockholders of International Combustion Engineering Corp. to vote on authorization of 100,000 shares of preferred stock and on increase in authorized common stock of no par value to 1,100,000 shares from 750,000 shares has been postponed to Aug. 30. The new preferred stock will be 7% and the convertible into common at any time at \$100 share for share.

British Match Corp., with capital of £6,000,000, has acquired share interests in Bryant & May and J. J. Masters. This will bring about a fusion of interests of concerns carrying on the business of manufacturing or dealing in matches. The company will enter into an agreement with Bryant & May and Swedish Match Co.

Commercial Solvents Corp. has declared an initial quarterly dividend of \$2 a share on the new capital stock, payable Oct. 1 to holders of record Sept. 20.

Mallinckrodt Chemical Co., St. Louis, will expend \$12,000 on plant improvements.

[Foreign Exchange]

	Par	Current
Great Britain (pound sterling)...	4.866	4.855
France (franc) .....	.193	.039
Italy (lira) .....	.193	.054
Belgium (franc) .....	.198	.139
Czechoslovakia (crown) per 100	20.30	2.96
Denmark (krone) .....	.268	.268
Germany (mark) .....	.238	.238
Holland (florin) .....	.402	.401
Poland (zloty) .....	.193	.114
Norway (krone) .....	.258	.263
Spain (peseta) .....	.193	.169
Sweden (krona) .....	.268	.268
Switzerland (franc) .....	.193	.193
Argentina (peso) .....	.414	.427
Brazil (milreis) .....	.324	.119
Japan (yen) .....	.499	.472
India (rupee) .....	.485	.363
China (Silver dollar, Hongkong)	.789	.484
(Tael—Peking, silver)	1.146	.660
(Tael—Shanghai, silver) ...	1.986	.606

[Stocks & Bonds]

	1926		1927		Current	
	High	Low	High	Low	Bid	Asked
*Air Reduction	146%	107 1/2	199 1/2	134 1/2	183	184
*Allied Chem.	148%	106	161 1/2	131	167 1/2	168
*Allied Chem. pfd.	122%	118%	124 1/2	120	122 1/2	123
Am. Ag. Chem.	34%	9	14%	8%	14 1/2	14 1/2
*Am. Ag. Chem. pfd.	96 1/2	35%	51%	28 1/2	48%	49
*Am. Can.	63 1/2	38%	61%	43%	65 1/2	65%
*Am. Can. pfd.	130%	121	138	126	133	137
*Am. Cyan, "A"	46	36 1/2	40	32	29	32
*Am. Cyan, "B"	47	35 1/2	35	32	28	29 1/2
*Am. Linseed	52%	25%	45	20 1/2	52%	53 1/2
*Am. Linseed pfd.	87	68%	74	46%	79 1/2	80
*Am. Metals	57%	42 1/2	46%	38	43 1/2	44
*Am. Metals pfd.	120	113 1/2	112	107	108	110
*Am. Rayon Prod.	35%	29%	16	3 1/2	15	16 1/2
*Am. Smelting	152	109%	172 1/2	132%	175	175 1/2
*Am. Smelting pfd.	122%	112%	130 1/2	119 1/2	129	130
*Am. Zinc	12%	5%	10 1/2	7	5%	6
*Am. Zinc pfd.	54 1/2	20	51 1/2	39	39	40
Anglo-Chil. Nitrate	101	97 1/2	108	106	95 1/2	...
*Archer-Dan-Mid.	34%	38	42	38	44	45 1/2
*Archer-Dan-Mid. pfd.	108	100	100 1/2	95 1/2	108	110
*Armour Del pfd.	97%	90 1/2	96 1/2	86	84 1/2	85
*Atlas Powder	64	54	65	56 1/2	63	66
*Atlas Powder pfd.	97%	96	105	98	102	103 1/2
*Brooklyn Un Gas	98	68	136	89 1/2	146	147
*By-Products Co.	93	53	92 1/2	66	73	75
*By-Products Co., pfd.	...	...	115	105	110	114
*Calla L & Z	2%	1 1/2	2%	1 1/2	1 1/2	1%
Canad. Ind.	20	16 1/2	27	14	26	26 1/2
Canad. Salt	145	131	115	105	105	115
Casein Co.	...	...	191	149	183	189
Celluloid Corp.	26	16	61	16	63	64
Celluloid Corp. pfd.	8	55	110	63	115	116
*Certainteed Prod.	49 1/2	36 1/2	55%	42	49	49 1/2
Charcoal Iron	33 1/2	24	20	8	10	20
Chesebro Mfg. Co.	78	65	105	73	103	103 1/2
Clark Co. Fred	5	2%	4	2	2 1/2	4
Cleve Cliff Iron	75	69 1/2	86	69	...	...
*Columb Carbon	70%	55%	85 1/2	66 1/2	...	...
*Com. Sol B	237	118 1/2	384	223	100	101
*Cont. Can	92 1/2	70	77 1/2	58%	73%	74 1/2
*Cont. Can pfd.	126	117 1/2	127	120	123 1/2	126
*Corn Prod.	51%	35%	65 1/2	46 1/2	55%	55%
*Corn Prod. pfd.	130 1/2	122 1/2	132 1/2	128	132	134
*Davison Chem.	46%	27 1/2	34 1/2	26 1/2	36	36 1/2
*Davison Chem., pfd.	...	...	43 1/2	43	43 1/2	43 1/2
*Devoe & Rayn 1st pfd.	104 1/2	31	42%	37	37 1/2	38 1/2
*Devoe & Rayn 1st pfd.	105	40	110	101	107	109
*Dow Chem	100	74	98%	100	...	...
*DuPont deb.	110 1/2	100%	112%	105 1/2	113	113
*DuPont de Nem.	181 1/2	157	299	168	313%	314
*Eastman Kodak	136%	106%	173%	126 1/2	167 1/2	168
*Freeport Texas	36	19%	77%	34	78%	79
*Gen. Asphalt	94 1/2	50	96%	72 1/2	72	72 1/2
*Gen Asphalt pfd.	130	94%	144 1/2	113	115	117
*Glidden	25%	15%	22	14 1/2	14%	14%
*Gold Dust	56 1/2	41 1/2	59%	42	59 1/2	60
Grasselli	145	120	130	125	125	130
Grasselli, pfd.	103 1/2	102	103	100	101	103
Hercules Powd. pfd.	115	110	119	115	116	116 1/2
*Household Prod.	48%	40	60 1/2	43%	61	61 1/2
Industrial Rayon	19%	10%	8%	4%	10	10 1/2
*Int. Agr.	26%	9%	10%	6%	11	11 1/2
*Int. Agr. pfd.	95	57	65	33	54	55
*Int. Nickel	46%	32%	75	38 1/2	65	66
*Int. Salt	84%	61 1/2	72	65	66	70
MacAnd & Forbes	46 1/2	40	43 1/2	40	42	43
*Mathieson Alk.	106 1/2	62 1/2	124%	82	117 1/2	119
*Mathieson Alk. pfd.	105	100	112	103	112	115
Merck & Co.	78	57	86	65	72	75
Merrimac	83	72	80	73	75	80
*Natl. Dist.	34	12 1/2	51%	17	...	...
*Natl. Dist. pfd.	73 1/2	57	69%	43 1/2	38 1/2	39 1/2
*Natl. Lead	181	138	200	160	119	120
*Natl. Lead pfd. "A"	120	110	135	117 1/2	132 1/2	...
N. J. Zinc	214 1/2	180	206	202	203	206
*Owens Bottle	99%	53%	84 1/2	75 1/2	77 1/2	78
Penn Salt	91	71	77	74	77	79
*Peoples Gas Chi	131	117	150 1/2	126	...	...
Proc. & Gam.	163	142 1/2	159	157	150 1/2	150 1/2
Royal Bak Pdr.	213	190	240	161	159	...
Royal Bak Pdr. pfd.	105 1/2	102	105	99	310	312
*Sherwin-William	108	108 1/2	110	105%	103	105
*St. Joseph Lead	48 1/2	36%	43%	36	40 1/2	41
Silica Gel	22%	11%	19	13 1/2	15	...
Swan & Finch pfd.	...	30	30	20	20	30
*Swift & Co.	110	110	120 1/2	116	116%	117
*Tenn C & C	16	10%	13 1/2	8%	8%	9
*Texas Gulf & S	142	119 1/2	175 1/2	173	175	175 1/2
*Union Carbide	100%	78	144 1/2	98%	137%	138
*United Dye pfd.	58	58	49	38 1/2	37	40
Un Gas Imp.	144 1/2	84 1/2	113	106	109%	112
*U. S. Gypsum	166	126	110	107	107 1/2	110
*U. S. Ind. Al.	84 1/2	45%	89	69	79%	80
*U. S. Ind. Al pfd.	114 1/2	90 1/2	110 1/2	107 1/2	115	119
*Va Car 6% w i	69	31%	43	26 1/2	43	44

STOCKHOLDERS OPPOSE CELLULOID CO. MERGER

When stockholders of Celluloid Co., Newark, N. J., voted recently in favor of merging with Safety Celluloid Co., the vote was opposed by Raymond Lemassena, who had, at other meetings, expressed opposition to the merger. Some objection, also, was voiced by Edward T. Frankel, who was private secretary to Marshall C. Lefferts, who recently retired as Chairman of the Board, after the new management, headed by Robert Campbell, president of Celluloid Co., took hold of the business. Mr. Lemassena, in presenting his argument against the merger, claimed that the present management could have made the plant profitable without the merger.

American Woolen Co.'s report for first half of 1926 shows net loss of \$822,143 after charges and depreciation. After payment of preferred and subsidiary dividends, there was a deficit of \$1,843,414. President A. G. Pierce has decided that semi-annual statements will henceforth be a regular feature, on the ground that stockholders are entitled to more information than that available only at the end of each fiscal year.

Westvaco Chlorine Product Co. has arranged for plans for extending its plant at Charleston, W. Va. Plans are being drawn by H. K. Ferguson, Cleveland, and call for razing of several existing buildings and of several existing buildings and sites, as well as erecting of new structures on their land at present vacant. A sulfur recovery unit will be included as well as a brine treatment and storage unit. Cost is estimated at \$600,000.

Western Industries of California recently purchased property at Stege, Cal., from Metropolitan March Co. and is preparing to add to the buildings. This concern has begun the manufacture of charcoal and acetic acid from peach and apricot pits. R. P. Orenden has been made manager of the plant. The main offices are in San Francisco.

Curb Exchange, New York, has admitted to its list for trading purposes Celluloid Corp. shares, approximately 24,551 shares of \$7 dividend preferred stock of no par and approximately 195,420 shares of common stock of no par value.

Borne Schymser Co. has declared an extra dividend of 75c a share and the regular quarterly of \$1 a share, payable Oct. 15 to holders of record Sept. 23. An extra dividend of the same amount was declared six months ago.

Chemistry is producing two dollars in dividends where one was earned before

WHEREVER competition is keen, the industry which takes the longest look ahead is the industry that survives. Industry has learned much and profited much through the work of chemists and chemical engineers. Everywhere today are to be found examples of reduced production costs and increased profits by the better utilization of facts, materials, machinery and methods developed through Chemistry. The world's greatest and

latest achievements in these fields are embodied in the exhibits at the Chemical Industries Exposition in New York.

Progress is rapid. Each year sees improvements and much that is radically new. The surest, easiest, quickest way to keep up with progress is to visit this great international exposition. The leaders of your industry will be there. Of course you will be there too.

Note the dates now.

ELEVENTH EXPOSITION OF CHEMICAL INDUSTRIES

Grand Central Palace, New York • Sept. 26 to Oct. 1, 1927

Management International Exposition Company Largest industrial exposition organization in the world.

Ⓜ 1928 C

[Industrial Chemicals]

ALL ALCOHOL FORMULAE ADVANCED 2c GALLON

Result Of Continued Strength—Will Induce Users To Cover—Ammonium Chloride Competitive—Heavy Acids And Alkalies Moving Rapidly—Synthetic Methanol Controls Market—Antimony Easy—Tin Salts Unchanged—Lead Derivatives Firm.

	Advanced		Declined			
	C. D. Alcohol 2c gallon		Ammonium Chloride gray Imp. ¾ c lb			
	Trend of the Market					
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Acetic Acid, Glacial, c-l ... lb.	.11%	.11%	.11%	.11½	.19½	...
Sulphuric Acid, Tanks 66 deg. ton	15.00	15.00	15.00	15.00	55.00	20.00
Amm. Sulfate c-l NY 100 lbs.	2.30	2.30	2.20	2.40	7.50	2.65
Bleaching Powder, c-l .100 lbs.	2.00	2.00	2.00	2.00	9.50	1.50
Copper Sulfate c-l NY .100 lbs.	5.00	5.00	4.95	4.90	20.00	4.60
Potash Caustic c-l Imp. lb.	.07%	.07%	.07%	.07%	.87	.08
Soda Ash, 58 p.c. c-l .100 lbs.	1.94	1.94	1.94	1.94	3.50	.60
Caustic Soda 76 p.c. c-l 100 lbs.	3.66	3.66	3.66	3.66	9.50	1.42
Potassium Bichromate lb.	.08%	.08%	.08%	.08%	4.65	.06
Sodium Prussiate lb.	.12	.12	.12	.10	1.25	.18
Average	3.036	3.036	3.014	3.027	10.79	2.99

Current Quotations and Comments on Specific Items, Pages 350-354

An announcement of an advance in the price of all formulae of denatured alcohol, was the outstanding event in the heavy chemical field for the week. The continued strength displayed in alcohol prices for some time, together with an attempt to urge the buyers who have not committed themselves for their winter supply, were the direct causes for this procedure. Contradictory to the strong surface conditions and a very firm undertone, many consumers thought the high values of alcohol were fictitious and would not hold through the Fall and consequently postponed their purchasing. Last week it had been estimated that possibly 40% of the buyers had not yet covered for the winter, so it is that this rise will convince the buyers of its soundness and force them to enter their agreements for the winter period.

Ammonium chloride is still competitive but the domestic makers seem to control the market and obtain the majority of the business. Some still prefer the imported material at higher prices and some offers have been made by importers, allowing a liberal reduction on gray material with orders for white at the asking prices. The recent slashes in the prices of methanol have secured a permanent monopoly in the market for the producers of synthetic material and doubtlessly wood distillers will advance the prices of other wood derivatives, to cover their losses on methanol.

The distribution of heavy acids and alkalies continues at a steady

pace at full prices. Buying of ammonia water and anhydrous ammonia has declined and sales will gradually diminish to a minimum point until next season. There is nothing foreseen to expect any early improvement in the glycerin market but the time for its heaviest demand is approaching and if it reaches the dimensions anticipated by the producers, a sharp advance in prices will be made. Antimony is on an easy basis and very little business has been forthcoming. Although nothing can be seen at this time that would tend to higher prices, a heavier call for this material is expected and coupled with any change in conditions in China, this material would also rise. Tin salts are unchanged since last reported and have not furnished any unusual activity, in fact the distribution is

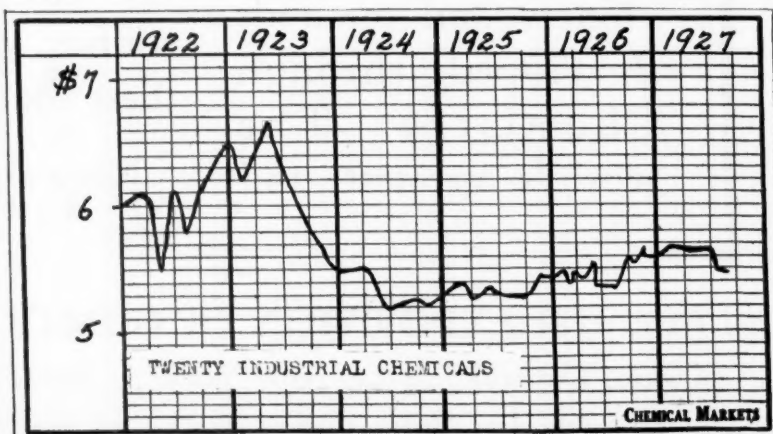
somewhat below normal. The future for the heavy chemical field points strongly at fairly stabilized prices and an increase in consumption, particularly in heavy acids and alkalies.

Texas Gulf Sulphur Co., which obtained a lease from Gulf Oil Corp., on two domes believed to contain sulfur is drilling on the Boling dome in Wharton County, Tex., and a very satisfactory percentage of sulfur has been discovered. The preliminary work indicates that there is every reason to believe that this mound contains sulfur in commercial quantities. Less definite results are in regard to the deposits which are contained in the Long Point dome in Fort Ben County, Tex., but from preliminary drilling that property is estimated to contain approximately 8,000,000 tons of available sulfur.

A. J. Sullivan, examiner, Interstate Commerce Commission has prepared a report for the Commission in which he found that the rate charged on denatured alcohol, in carloads, from Harvey and New Orleans, La., to Valparaiso, Ind., was unreasonable, and he recommends that reparation be awarded. The decision is in the case of Chicago Mica Co. against Chicago & Eastern Illinois Railway Co.

Lacquers not containing alcohol imported into Germany from the United States are subject to an important duty of 25 marks per kilo after Sept. 6, against a previous rate of 33 marks per kilo, as a result of the consummation of a commercial treaty with France.

Hardella Dye Works, Joplin, Mo., has been acquired by B. W. Plank, of Girard, Kan., and M. C. Keys, of Eldorado, Kan., who will continue the existing business.



The Application of Cellosolve and Its Derivatives to the Lacquer Industry

AFTER years of experimentation it is now conceded that no one solvent can economically and successfully meet all the varied needs of the lacquer industry.

Automobile lacquers, brush lacquers, architectural lacquers, must each meet different conditions that can be satisfied only by a solvent or a mixture of solvents designed for each particular use.

Cellosolve Acetate, boiling at 154°C. and practically odorless, is recommended in conjunction with Cellosolve for use in automobile lacquers. Actual use in body finishing plants has demonstrated that lacquer containing these two solvents in proper amounts will produce a surface free of "orange peel" that sands and polishes to a high gloss with surprisingly small effort. The rate of drying can be controlled within narrow limits by varying the proportion of each solvent. Blushing under even the most adverse conditions can be prevented by very moderate amounts of Cellosolve Acetate. Properly balanced lacquers containing twenty to twenty-five per cent Cellosolve Acetate will not blush at 100 per cent humidity and 90°F.

Ten to twenty per cent of combined Cellosolve and Cellosolve Acetate will produce better results than previously were obtained with thirty to forty per cent of "high boiler," thus making it possible to secure better results at less cost.

More complete information concerning quotations and tested formulations may be obtained by addressing

CARBIDE AND CARBON CHEMICALS CORPORATION
30 East Forty-second Street, New York City



Unit of Union Carbide and Carbon Corporation

[Crudes & Intermediates]

INTERMEDIATE DISTRIBUTION IN GOOD QUANTITY

Preference Shown For Dark Colors Reflects In Intermediates—Paraphenylenediamine Firm—Change In Paranitraniline Likely—Aniline Oil and Mirbane Oil Strong—Light Oil Distillates Unchanged—Benzene Still Shaded.

	Advanced No Advances.			Declined No decline		
	Trend of the Market					
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Benzene, pure tanks wks. ....gal	.22	.22	.23	.25	1.10	.25
Naphthalene flake .....lb.	.04 3/4	.04 1/2	.04 1/2	.04 1/2	.18	.03
Phenol Spot .....lb.	.19	.17	.17	.18	1.50	.08
Toluene tank wks .....gal	.35	.35	.35	.35	—	—
Aniline Oil 1c-1 .....lb.	.15	.15	.15	.15	1.40	.10 1/2
Alpha-naphthylamine .....lb.	.35	.35	.35	.35	1.28	—
Benzaldehyde .....lb.	.70	.70	.70	.70	—	—
Betanaphthol bbls .....lb.	.24	.24	.24	.24	1.50	.08
Dimethylaniline .....lb.	.32	.32	.32	.30	1.30	—
Paranitraniline bbls .....lb.	.52	.52	.52	.45	1.58	.18
Average	0.309	0.309	0.308	0.302	—	—

Current Quotations and Comments on Specific Items, Pages 350-354

A marked increase in the distribution of intermediates has been prominent since the first of the month, particularly those used in the manufacture of dark colored dyestuffs. The dyestuff industry has lived recently and in many cases a preference is shown for darker shades, over the popular light or pastel shades. This condition naturally reflects in the intermediate field and makers are hopeful of an exceedingly heavy Fall. At this time there is no increase in buying, contract deliveries are regular and there is a nominal amount of spot business, activity seems centered in preparing for the contracting period. Of outstanding significance is the position of paraphenylenediamine. Makers of this product report uninterrupted progress to the consuming destinations at firm prices. Paranitraniline is stirring but it has not yet been learned in which direction it will move. It looms upwards as competitive forces realize the finished product can easily uphold it, on the other hand there are strong arguments in its favor, to descend.

Aniline oil is very strong and reported to be favored with unobstructed freedom. This item has been in a strong position for some time and its consistency along these lines might result in an advance in price. Nitro benzene is also very firm and its activity is reason enough for its ability to prevent any attempt at diversion from schedule prices. Beta-naphthol is another item provided with free mo-

tion and a bright outlook for the remainder of the year. Light oil derivatives are unchanged. Benzene is still subject to price shading although the demand is termed as excellent. Xylene and solvent naphtha are relatively in the same position but are furnished with very little demand.

Output of by-product coke for July amounted to 3,658,000 tons, a slight increase from the preceding month. The average daily rate of production, however, decreased, falling from approximately 120,000 tons in June to 118,000 in July. The active operations numbered 78 plants, producing at about 80% of their capacity. The July output of beehive coke amounted to 467,000 tons, a decline of 90,000 tons from the preceding month, says National Association of Purchasing Agents. Clay sold by pro-

ducers in the United States in 1926 amounted to 3,966,313 short tons, valued at \$14,102,505, or \$3.56 a ton, according to Bureau of Mines, Department of Commerce. These figures show a decrease of 2 per cent in quantity and an increase of 11 per cent in value compared with 1925. Sales of kaolin, clay used in making high-grade pottery and porcelain, oil-cloth, and other products amounted to 432,215 tons, valued at \$3,771,568, an increase of 18 per cent in quantity and 17 per cent in value compared with 1925.

JUNE BENZOL EXPORTS (Special to CHEMICAL MARKETS)

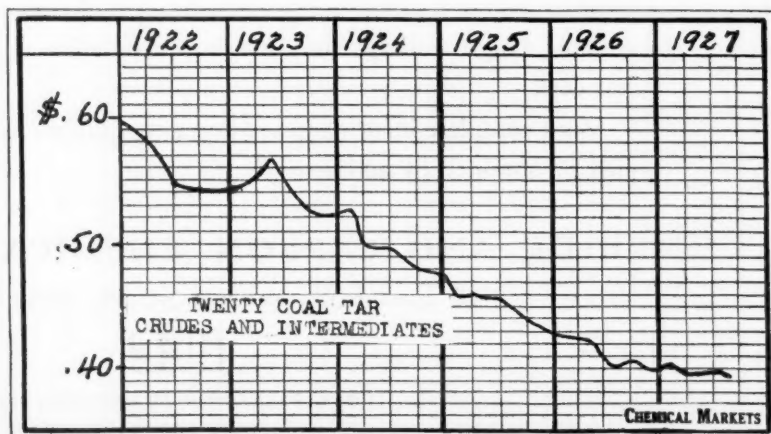
Washington, D. C., Sept. 7—During June 2,174,280 gallons of benzol were exported valued at \$567,049 according to the Department of Commerce.

Also during June, 33,456 barrels of crude coal tar and coal tar pitch were exported valued at \$180,462 and during the same month 2,327,550 pounds of other crude distillates were exported valued at \$44,625.

By-Products Coke Corp., Chicago, reports for the quarter ended March 31, 1927, net income of \$436,270 before Federal taxes, equal after paying preferred dividends to \$3.11 a share on the 189,931 no par common shares outstanding. This compares with \$717,320 or \$3.60 a share on the common in the corresponding quarter of 1926.

International Combustion Engineering Corp. has acquired from Sulzer Brothers, Winterthur, Switzerland, the Sulzer system for dry quenching coke, which will be developed in this country by a new subsidiary, Dry Quenching Equipment Corp.

Reports of the co-operation of British and German dye interests are strengthened by the increase in German Dye Trust shares.





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[Oils and Fats]

COTTONSEED, RAPESEED ADVANCES FEATURE MARKET

Strong Position of Refined and Crude Cotton Oil Continue This Week—Japanese Rapeseed Higher on Good Consuming Demand—Olive Oil Foots Up—Linseed Easy—Neatsfoot, Lard and Oleo Oils Strong and Higher—Market in Good Position After Holiday.

Advanced						
Chinawood Oil, spot bbls., $\frac{1}{2}$ c lb						
Cottonseed Oil, PSY, spot, 0.55c lb						
Cottonseed Oil, crude all pos., $\frac{1}{2}$ c lb						
Greases, choice white, spot, $\frac{1}{2}$ c lb						
Declined						
Rapeseed Oil, Japanese, spot, 3c gal.						
Linseed Oil, spot, 0.3c lb						
Trend of the Market						
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Lard No. 1 .....	.78%	.73%	.73%	.85%	2.90	.92
Neatsfoot 20 deg. ct.	1.26	1.24%	1.24%	1.31%	8.45	.95
Red Oil distilled .....	.09	.09	.09	.10	.17	.07
Stearic Acid T. P. ....	.13%	.13%	.13%	.16%	.38	.12
Coconut Ceylon tanks .....	.08%	.08%	.08%	.09%	.40	.14
Cottonseed, crude tanks .....	.09%	.08	.08	.12%	.25	.08
Linseed crude c-l bbls .....	.78	.81	.84%	.92	1.85	.57
Olive, denatured	1.63	1.68	1.68	1.25	4.60	1.05
Peanut refined .....	.15	.15%	.15%	.16%	.30	.08
Soya Beans bbls. ....	.12	.12	.12	.13.	.19%	.07
Average	4.881	4.885	4.888	4.70	5.92	1.50

Current Quotations and Comments on Specific Items, Page 356

A further upward movement in the spot and future markets of refined cottonseed oil again featured the activity in the local oil market over the past week. The last three days of last week were marked by a continuation of heavy sales and advancing markets. Crude oil is higher by $\frac{1}{2}$ c per pound in all sections and is likewise quite firm.

The strong movement in cottonseed oil has had a similar effect on practically the entire market, which, since the upward turn of cottonseed about the middle of last month, has been showing improvement. Linseed oil is still the lone exception to this condition, again being quoted openly lower than last week and with the possibility of shading the open quotation a bit on actual business. The primary seed markets are also easy this week but crushers report a somewhat better consuming interest and this may serve to strengthen the market somewhat.

Japanese rapeseed oil which has shown signs of firmness for some weeks advanced several cents since last week on a good consuming demand and the market is very strong in its present position. English and blown rapeseed have not responded similarly, being offered at unchanged levels. Practically all of the animal fat group are very strong and higher, with producers having little in trouble in placing their offers at the openly quoted markets. Chinawood oil on the Coast is firm and lacking advices from China as to future offers the

market here is taking on a strong aspect again. Olive oil foots are higher on spot caused by reports of a lack of supplies in Spain. Denatured olive oil continues to mark time on spot with consumers satisfied to take on their requirements in small lots as needed, fearing to buy in large quantities with the market at current levels. Menhaden and cod oils are firm and moving in quite good volume with prices unchanged from the previously quoted levels. Coconut, palm perilla and corn oils are all unchanged and rather routine at the moment.

Walter C. Teagle, president Standard Oil Co. of New Jersey, will arrive in New York, Sept. 10. While in London he had another meeting with Sir Henri Deterding, head of the Royal Dutch-Shell group.

CORN CROP THREATENED

"Threat of a corn crop failure in the main Corn Belt is being widely felt in business activity there. Should such a failure occur, its effects will undoubtedly be far-reaching, says National Bank of Commerce in New York writing in the September issue of "Commerce Monthly".

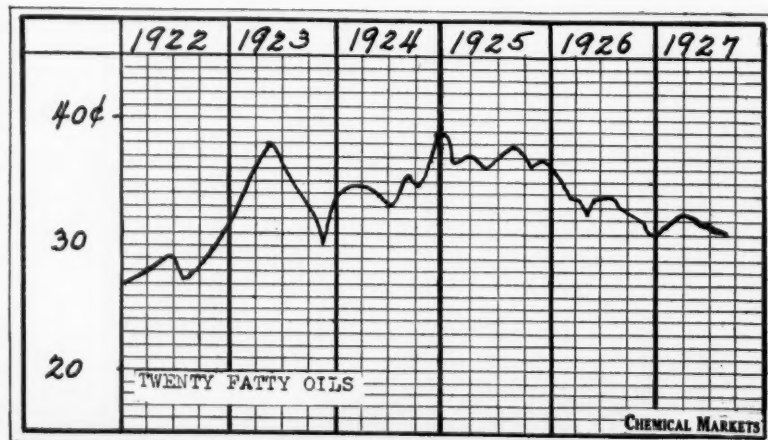
"Official estimate of the corn crop for the country as a whole, on the basis of Aug. 1 condition, is 2,385,000,000 bushels. Nearly half a billion below an average outturn and a little more than the short crop of 1924. But because of the lateness of the crop the frost date will be especially decisive in the final outturn. A few week's delay might bring a harvest well above the present estimate."

Committee on Arrangements and Entertainment for the fortieth annual convention of National Paint, Oil and Varnish Association, Inc., at Atlantic City, Oct. 26-28 is asking members to make reservations as early as possible, as they are coming in heavily.

Schedules which added vegetable oils originating in Alabama, Georgia, Louisiana, Mississippi, N. and S. Carolina and Tennessee to the list of articles not subject to free lighterage in New York harbor have been suspended from Aug 6 to March 6, 1928.

New cottonseed oil mills include at Rowland, N. C., Rowland Oil Mill, Z. V. Pate, James L. McNair, E. H. Evans, all of Laurinburg and at Honey Grove, Tex., the Honey Grove Cotton Oil Co.

Murphy Varnish Co. located in its new factory and office building at 5540 So. Laramie st., Chicago, has sold its old plant at 22nd and Dearborn st., to Beckley Ralston Co., automobile supply dealers.





DESPITE what the calendar says on January 1st, **SEPTEMBER** is generally conceded to be the real beginning of the business year.

Vacation days and summer lassitude are over and you are settling down to another year of hard work.

What are your fall chemical needs? If they include any of the following, let us figure with you:—

Carbon Tetra Chloride
Calcium Chloride
Epsom Salts Technical & U. S. P.
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[Agricultural Chemicals]

DRIED BLOOD AND TANKAGE HIGH ON SCARCITY

Copper Sulfate Demand Surprises Producers Who Expected Cession—
Price Not Likely To Drop Over Period—Ample Supplies Give Sodium
Nitrate Dull Tone—Potashes Normal—Sulfate of Ammonia Strong.

Advanced
Blood N. Y. 25c unit
Blood S. A. 35c unit
Tankage 35c unit

No declines

Declined

Trend of the Market

	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Acid Sulfuric 66° .....ton	\$15.00	\$15.00	\$15.00	\$15.00	\$55.00	\$20.00
Amm. Sulfate .....100lbs.	2.30	2.20	2.40	2.40	1.75	2.65
Arsenic .....100lbs.	4.00	4.00	4.00	3.50	18.00	4.00
Copper Sulfate c-1 .....100lbs.	5.00	4.95	4.95	4.85	20.00	4.60
Paris Green .....100lbs.	.19	.19	.19	.19	.50	.11
Potash Muriate 80% .....ton	36.40	36.40	36.40	34.90	...	...
Potash Sulfate 90% .....ton	47.30	47.30	47.30	45.85	440.00	48.07
Phosphate Acid 16% .....ton	10.00	10.00	10.00	10.00	11.00	3.00
Phosphate Rock 68% .....ton	3.00	3.00	3.00	3.15	2.65	3.00
Sodium Nitrate .....100lbs.	2.30	2.30	2.60	2.34	5.00	1.90
Average	12.515	12.515	12.550	12.218	10.350	13.84

Current Quotations and Comments on Specific Items, Page 358

The heavy demand for copper sulfate, which has been in constant flow through the summer, continues in good size and far above the expectations of the producers. The first of September usually begins an era of dullness in this market which extends into November. To this time, the demand is of voluminous proportions and makers foresee a bright outlook for the next two months, which are usually the slowest in the year. This free motion is evidence of the fact that the producers will make no concessions from their existing schedules, over this period. The market for sulfate of ammonia, is very strong but contains no significant features. Practically all of the large contracts have been entered to extend over the coming season and movement at this time is confined to the regular deliveries against these agreements.

Nitrate of soda is unchanged and drifting along easy lines. The Chilean suppliers are shipping regularly and frequently and stocks here are of comfortable dimensions. The demand in the South has been very good for some time past and this week failed to show of any recession. Northern buyers, however, are not very active but importers are firm in their quotations and do not yield to bids lower than their quotations. Potash salts are proceeding normally with the free movement of potassium muriate, the outstanding feature. The discount allowed by importing interests this month amounts to 4%, but on all orders placed after October 1st, only a 3% deduction will be granted. The heavy movement of calcium arsenate has eased somewhat both here and in the South but its position is supposed-

ly strong as no deviations from the manufacturers prices have been heard. Scarcities of blood and tankage have caused price inflations on the market. The major portion of this production has been used for stock feeding purposes, thereby leaving only a small quantity for fertilizer purposes. The market is quite bare of stocks and even the South American production, which is also much higher in price, is hastily bought by the immediate consumers, stripping the open market of supplies. Fish scrap is sustaining its high value, owing to poor fishing results in the South. Very small quantities of this material are offered for sale. The remaining products continue quiet and reveal no changes in price.

Baugh Chemical Co., Baltimore, Md., has awarded a contract for a storage building 30 by 80 ft., to cost \$40,000.

FERTILIZER IN FRANCE

Production of fertilizer in France has increased considerably since the war, and the time may not be far distant when the country will be able to supply its own needs without depending upon foreign imports, according to Bankers Trust Co.

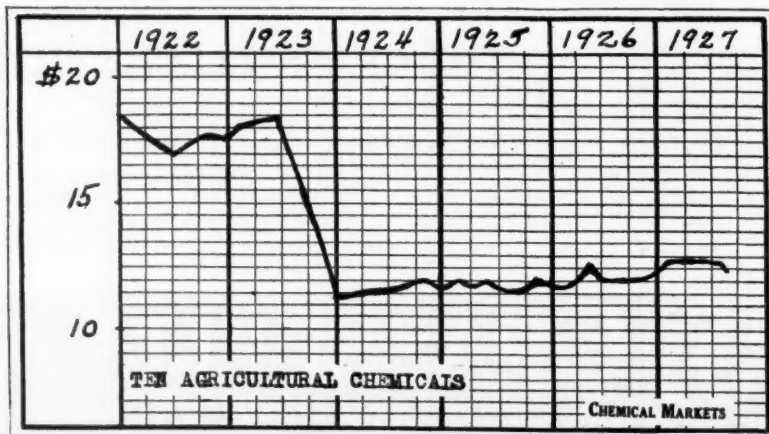
Output of nitrates, phosphates and potassium products during the last two years has been as follows: Sodium nitrate imports totaled 328,228 metric tons in 1925, but, due not only to the rise of the franc, but also to the increased consumption of ammonium sulfate, fell to 174,718 tons in 1926. French production of ammonium sulfate, which in 1913 had amounted to 75,000 metric tons, reached 117,000 tons in 1925 and 155,000 in 1926, while imports rose from 121,059 metric tons in 1924 to 126,687 in 1925 and reached 204,112 in 1926.

There are now in France four factories producing synthetic ammonia, the present monthly output of which amounts to 410 metric tons, but is expected later to reach 1,320 metric tons a month; nine more factories are being built and are scheduled to begin work during 1927, the total output of which is estimated at 7,320 tons per month.

Most of France's imports of natural phosphates come from North Africa; in 1925, 1,282,000 metric tons out of total of 1,293,000, and in 1926, 1,492,000 metric tons out of 1,502,000 were obtained from this source.

France's production of superphosphates in 1925 is estimated at 2,380,542 metric tons, as against 2,303,000 in 1924; no figures are available for 1926. Imports of superphosphates into France during 1926 totaled 11,765 metric tons and French exports amounted to 281,572 tons.

France's production of pure potash (K2O) in 1925 totaled 366,664 metric tons, as against 310,061 in 1925 and 271,614 in 1924; its use is increasing rapidly.





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Cyanide, Zinc

Dicyandiamid

Diortho-Tolylguanidine

Diphenylguanidine

Formic Acid

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Potassium Prussiate, Yellow

Sodium Prussiate, Yellow

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[Industrial Raw Materials]

ROSINS AND TURPENTINE TAKE GENERAL DECLINE

Top Grades Much Lower In South—Shellac Quiet In Calcutta—Tanning Materials Interesting—No Reports Yet On Crop—Waxes Easier—Varnish Gums Show No Life.

Advanced No Advances Declined

Bees Wax 1c lb
Candelilla Wax 1c lb
Japan Wax 1c lb
Rosin B,D,E,F,G,H, 10c 280 lbs.
Rosin I,K, 10c@20c 280 lbs.

Rosin M 10c 280 lb
Rosin N 15c@20c 280 lb
Rosin WG, WW, 10c 280 lb
Turpentine 1c gallon

Current Quotations and Comments on Specific Items, Page 358

Of feature importance in the industrial raw material field this week was the surprising break in the rosin market. The lofty prices of the top grades declined sharply and for the first time in some while, they failed to command premium prices. Supplies of these grades had apparently been held in the inland, creating a high market but have now been released for sale and consequently easing the market. The medium and lower grades were also sharply lower and even with this break, there is little business passing of any quantity as sellers prices are still higher than the buyers ideas. Turpentine was also lower, for the week. Its closing price was close to that prominent through most of the previous week and is expected to linger about this figure for the coming week.

The latter part of the month, inaugurates the seasonal buying drive for tanning materials. There is no buying current at this time as there is very little material available and nominal quotations are high. There have been no reports received, concerning the quality of the crops but their outlook commands much interest from buying quarters. Shellac is quiet and it is said that dealers in the primary market are assuming easier positions and a decline might result in this market. Varnish gums are still stationary and offer no indications of rousing from their present slumber. There have been no visible price changes and the only interesting item is benzoin gum which still points higher. Egg albumen and egg yolk are unchanged and the resumption of the manufacture of technical vegetable albumen has had no effect on the price. Japan wax is softer as is candelilla. All grades of bees wax are down on an over-supply and an easing demand.

(Special to CHEMICAL MARKETS)

Savannah, Ga., September 3, 1927—The close price fluctuations of last week, had their effect on the turpentine market and caused a reduction in price to 50½¢@50¾¢ gallon. The market was rather weak but to-day's inquiry was decidedly better as practically all the buyers placed bids on the visible offerings. The holiday spirit is allied in holding the market down and although the immediate market is not expected to advance very much, a rise will doubtlessly take place later on in the month. Standing stocks were again larger this week and with this condition in view, it is believed the coming week will not reveal any marked advance. The demand for export was not very heavy and shipments were some 600 barrels less than the previous week. Receipts for the week totaled 5,580 barrels and reported sales were 2,434 barrels. Additional spot sales were estimated at 2,000 barrels and shipments were only 1,265, barrels. Savannah stock to-day 30,964 barrels.

The rosin market was surprisingly weaker and heavy declines were featured on all grades. For the first time in many months, the fine grades have been in an easy position. Premium prices for these grades are not obtainable now and with receipts of growing dimensions, it is probable that they will descend further. Mediums and commons are much lower and appear to be a good purchase at the existing prices, as even though they may drop somewhat lower, a quick recovery will doubtlessly take place. Shipments were much better this week but a large amount of material is still standing. Sales were also large, probably buyers were influenced by the low market and receipts this week were 17,822 barrels. Sales reported of 10,482 barrels (possibly 4,000 barrels additional on private terms and contracts), shipments 18,

034 barrels. Stock to-day 121,780 barrels. Prices of rosin are:—X, WW, \$10.90; WG, \$9.45@9.65; N, \$8.90; M, \$8.65@8.70; K, \$8.70; I, \$8.55@8.65; H, \$8.50; G, F, E, D, B, \$8.45@8.50.

Jacksonville, Fla.—Turpentine is lower at 50½¢ gallon and all to-day's visible offerings were sold to one exporter. Rosin is also lower at the following prices. X, WW, \$10.85@11.10; WG, \$9.60@9.65; N, \$8.80@8.90; M, \$8.50@8.65; K, \$8.50@8.60; I, \$8.50@8.55; H, G, F, E, D, B, \$8.50. Jacksonville stocks, September 2, turpentine 26,169 barrels, rosin 72,157 barrels.

Antimony mines at Lake George, New Brunswick, Canada, will be reopened on Sept. 1 and operated on an extensive scale by a syndicate headed by Brigadier General Charles A. Smart of Westmount, Que., who contemplates the expenditure of approximately \$10,000,000.

Returning from an inspection of the Sale mines at Malagash, N. S., Brig. Gen. A. E. Smart reports that financial arrangements have been made for the construction of a chemical plant at the mines, involving a large expenditure of money.

Period during which calcium nitrate may be imported into Poland without payment of duty has been extended for a further three months until September 30. The exemption from duty only applies to calcium nitrate which does not contain ammonium nitrate.

Ditzler Color Co., Detroit will construct a new plant at Chicago Boulevard and the line of the Detroit Terminal Railway, of two-story factory and power house, to cost in excess of \$60,000 with equipment.

New nitrating plant of Lacquer Chemical Co. at Stege, Cal., began operations. The plant includes five large brick buildings and will make use of large quantities of California cotton for use in the manufacture of lacquers.

American Maize Products Co., New York, corn starch, gloss starch and cooking oil, has appointed E. T. Howard Co., Inc., New York to direct its advertising account.

A. E. Staley Mfg. Co., Decatur, Ill., has plans nearing completion for an addition, to be three-story and basement, estimated to cost \$75,000.



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Alcohol Chemicals

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Prices Current

Heavy Chemicals, Coal-tar Products, Dye-and-tan-stuffs, Colors and Pigments, Fillers and Sizes, Fertilizer and Insecticide Materials, Naval Stores, Fatty Oils, etc.

Chemical prices quoted herein are those of American manufacturers for goods, spot New York, f. o. b., or ex-store, for immediate shipment, unless otherwise specified. Industrial chemical products sold principally on a basis of f. o. b. works are specified as such. Quotations on imported chemicals are so designated. Resale stocks sufficient to be a factor in the market, are quoted in addition to makers' prices and are indicated as "second hands."

Oils and fats are quoted spot New York, or ex-dock.

Quotations on products sold f. o. b. mills, or spot Pacific Coast are so designated.

Industrial raw materials are quoted spot New York, f. o. b., or ex-dock. Materials sold f. o. b. works or delivered at various sections of the country are so designated.

The range of prices given is not "bid and asked," but indicates quotations from different sellers, based on varying grades or quantities or both. Containers named are the original packages most commonly used in the New York market.

Acetaldehyde Alcohol Ethyl

Acetaldehyde drs. 1c-1 wks	....	.24	..	.26
ACETANILID, tech 150b bbls	....	.20	..	.31
Acetic Anhydride	....		
92-95% 100b clys	....	.29	..	.35
Acetone, CP, 700b drs c-1 wks	....			.12
Acetone Oil drs N. Y.	....	1.65	..	1.75
Acetyl Chloride, 100b clys	....	.42	..	.45
ACID, Acetic, 28% 400b bbls c-1 wks	....			3.38
Glacial bbls c-1 wks	....			11.92
Benzoic, tech., 100b bbls	....	.57	..	.60
Boric crys., powd., 250b bbls	....	.08½	..	.11
Carbolic 10% 50gal bbls	....	.25	..	.28
Chlorosulfonic 1500b drs wks	....	.13	..	.16
Chromotropic, 300b bbls	....	1.00	..	1.06
Citric, USP, crys 230b bbls	....	.44	..	.55
Cleval's 250b bbls	....	.95	..	.97
Cresylic, 95% dark drs NY gal	....	.57	..	.60
97-99% pale NY	....	.62	..	.65
Formic, 85% tech., 140 clys	....	.11	..	.12
Gamma, 225b bbls wks	....	1.00	..	1.06
H 225 lb bbls wks	....	.57	..	.63
Hydrobromic, 48% com'l 155b clys wks	....	.45	..	.48
Hydrocyanic wks cyl	....	.80	..	.90
HYDROFLUORIC, 30% 400 b bbls wks	....			.06
Hydrofluosulfic, 35% 450b bbls wks	....			.11
LACTIC, 22% dark 500lb bbls	....	.05½	..	.06
44% light bbls	....	.13	..	.13½
Laurent's 250b bbls	....	.52	..	.54
Metanilic, 250lb bbls	....	.60	..	.65
Mixed, Sulfuric-nitric	....		
Drums, wks	.....	.07½	..	.08
Drums, wks	.....	.01	..	.01½
Monosulfuric FDelta 50b tins	....			.65
MURIATIC, 20° clys wks 100b	....	1.70	..	1.80
18° 120b clys c-1 wks 100b	....			1.35
Naphthionic tech, 250b bbls	....	.55	..	.59
N & W 250b bbls	....	.95	..	.99
NITRIC 36° 135b clys c-1 wks	....			5.00
40° clys c-1 wks	....			6.00
Oxalic, 300b bbls wks N Y	....	.11	..	.11½
Phosphoric, 50% 150b clys	....	.08	..	.08½
Syrupy USP, 70 lb drums	....			.16
Picramic, 300b bbls	....			.50
Pyrogallic tech 200b bbls	....			.86
Salicylic tech., 125b bbls	....	.27	..	.32
Sulfanilic, 250b bbls	....	.15	..	.16
SULFURIC, 66° 180b clys	....		
1c-1 wks	....	1.60	..	1.95
1,500b drums wks 100b	....			1.20
60° 1,500b drums wks 100b	....			1.10
Oleum 20 pe 1500b drums	....		
1c-1 wks	....			1.50
Oleum 40° drs 1c-1 wks met ton	....			42.00
Tannic, tech., 300b bbls	....	.30	..	.40
Tartaric, USP, crys powd 300b bbls	....			.37
Tobias, 250b bbls	....			.85
ALCOHOL, Butyl Normal 50gal drs wks c-1	....			.19%
Drums 1c-1 wks	....			.21½
Tank cars wks	....			.19%
Diacetone, 50gal drs del.	....	1.70	..	1.90
Ethyl USP 190pf 50galbbls gal	....			3.70
Anhydrous, drums	....	.50	..	.55
ALCOHOL, Ethyl, Denatured	....		
No. 1 Complete denat 190pf	....		
50 gal drums extra gal.	....			.48½
No. 5 Complete denat 185pf	....		
50 gal drums extra gal.	....			.44
Tank cars	....			.42

Chemicals

Acetone — This market presents a very firm tone in all directions at 12c lb. f.o.b. works, distribution is well maintained with a continued demand from foreign consumers.

Acid Acetic — This material continues to be provided with a constant flow of business and prevailing prices are firmly upheld at \$3.38 100 lbs. for 28° material. Glacial is likewise strong at \$11.92 100 lbs., in carloads.

Acid Citric — Distribution has not been cut heavy recently. The present price is 44c@45c lb. but the dwindling demand will probably result in lower prices.

Acid Cresylic — The market is unchanged and seems firm at 62c @65c lb. for pale and 57c@60c lb. for dark. Movement is in fair volume and much better than that seen in the past few months.

Acid Formic — The general market is soundly placed at 11c@12c lb. but some sales have been registered at the former schedule.

Acid H — Contract business is reported as excellent and spot business is in comfortable amounts at 57c@63c lb.

Acid Nitric — Regular routine business features this market with spot orders of average amounts. The prevailing levels for carboy carloads is \$5.00 100 lbs for 36° material and \$6.00 for 40° goods.

Alcohol Denatured — The new schedule effected Tuesday, reads: C.D. No. 1 tank cars 48c, drum cars 50c, drums 1c-1 52c and barrels 1c-1 59c. No. 5 c.d. tank cars 46c, drum cars 48c, drums 1c-1 50c barrels 1c-1 57c. These prices are quoted per gallon and represent an advance of 2c gallon over the former schedule.

Aluminum Stearate — There has been no change and it appears stationary at 23c@24c lb. with fair business for this period.

Alcohol Isopropyl Butyl Tartrate

ALCOHOL				
Isopropyl, refined gal drs	....	1.00	..	1.25
Propyl nml., 50gal drs	....			1.00
Aldehyde Ammonia, 100gal drums	....	.80	..	.82
Alpha-Naphthol crude 300b bbls	....			.65
Alpha-Naphthylamine, 350b bbls	....	.35	..	.37
ALUM, Ammonia, lump, 400b bbls	....		
wks 1c-1	....	3.15	..	3.50
Chrome, 500b cks. wks	....	5.25	..	5.50
Potash, lump, 400b wks 100b	....	3.50	..	3.75
Chrome, 500b casks wks 100b	....	5.25	..	5.50
Soda Grd., 400b bbls wks 100b	....			3.75
Aluminum metal, c-1 NY	....			26.00
Chloride, anhyd 275b drs	....	.35	..	.40
Hydrate 96% light 90b bbls	....	.17	..	.18
Stearate, 100b bbls	....	.23	..	.24
SULFATE, Iron-free bags c-1	....		
wks	....			1.75
Com'l bags c-1 wks 100b	....	1.35	..	1.40
Aminoazobenzene, 110b kegs	....			1.15
AMMONIA, anhyd, 100b bbls	....	.11	..	.12½
Water, 26° 800b drs del.	....			.63
Bifluoride, 300b bbls	....	.21	..	.22
Carb. tech., 500b casks	....	.08½	..	.09
Chloride White bbls wks 100 lb	....	5.05	..	5.25
Gray, 250 bbls wks	....	.05½	..	.05½
Lump, 500b casks spot	....	.11	..	.11½
Lactate, 500b bbls	....	.15	..	.16
Persulfate, 112 kegs	....	.27½	..	.30
Phosphate Tech., powd 825b	....		
bbls	....			.18
Sulfate, bulk c-1	....			2.30
Southern points	....			2.35
Amyl-Acetate, tech., 50 gal drs gal	....	1.90	..	2.00
Alcohol, see Fuel Oil	....		
ANILINE OIL, 960lb drums	....	.15	..	.16
Antraquinone, sub 125b bbls	....	.90	..	1.00
Antimony metal slabs tons	....			.11½
Needle powd 100b cs	....	.15½	..	.16
Oxide, 500 bbls	....	.16½	..	.17
Arsenic Red, 224 kegs cases	....	.10½	..	.11
White 112 lb kegs	....			.04
BARIUM Carbonate 200b bps wks ton	....	47.50	..	50.00
Chlorate, 112b kegs NY	....	.12	..	.12½
Chloride, 800b bbl wks ton	....	61.00	..	63.00
Dioxide, 88% 690b drs	....	.13	..	.13½
Hydrate, 500b bbls	....	.04½	..	.04½
Nitrate, 700b cks	....	.07½	..	.08
Barytes, floated 350b bbls	....		
wks	....	23.00	..	24.00
Benzaldehyde tech. 945b drs wks ton	....	.65	..	.70
BENZENE	....		
Comm. 90% 8,000gal tks wks gal	....	.22	..	.23
Commercially pure tks wks gal	....	.22	..	.24
Benzidine Base, dry 250b bbls	....	.70	..	.74
Benzoyl Chloride 500 drs	....			1.00
BETA-NAPHTHOL 250b bbls wks	....			.24
Beta-Naphthylamine tech 200b bbls	....	.63	..	.65
Sublimed, 200b bbls	....			1.35
Blanc Fixe, 400b bbls wks ton	....	80.00	..	90.00
BLEACHING POWDER, 700b drs c-1 wks contract	....			2.00
300b drs c-1 wks contract 100b	....			2.25
Blues, bronze Chinese, Millor	....		
Prussian Soluble	....	.30	..	.33
Bone Ash, 100b kegs	....	.06	..	.07
Black, 200b bbls	....			.03½
Borax, crys., 500b bbls	....	.04½	..	.05
Bordeaux Mixture, 16% pd	....	.11	..	.12
Paste, bbls	....	.08	..	.10
Butyl Acetate normal tk drs wks gal	....			1.55
Drums 1c-1 wks	....			1.60
Secondary 50gal drums	1.00	..	1.05
Aldehyde 50gal drs wks70	..	.75
Propionate, drs34	..	.36

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For Paint
Plating &
Agriculture

Copper Carbonate

Pure
Precipitated
in 400 lb. barrels

Makes an excellent light green paint, with good body and covering power.
For Platers, yields the maximum plate per pound and more plate per hour.
In Flag Smut of Wheat and Loose Smut of Oats increases stand and saves losses.


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192 Worth Street, New York

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High-grade chemicals in Industry, like good "gas" and oil in the engine, keep the machine in good running order.

THE MERRIMAC CHEMICAL COMPANY has been manufacturing Industrial Chemicals for 74 years and during that time its customers have had very little "engine trouble."

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Oil of Vitriol
Chloride of Alumina
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Sodium Sulphide

CLAYS

Commercial Alum
Iron Free Alum
Bisulphite of Soda
Bisulphate of Soda

LACQUERS

Ethyl Acetate
Butyl Acetate
Amyl Acetate
Fusel Oil
Alco. Deco

Acetic Acid
Nitric Acid
Muratic Acid
Battery Acid
H Acid

Aqua Ammonia
Anhydrous Ammonia
Sulphur
Sulphur Bleach
Mixed Acid

Nitrate of Iron
Perchloride of Iron
Depilatory
Nitre Cake

Salt Cake
Sodium Aluminate
Ammonia Alum
Calcium Chloride

Metall Lacquers
Lacquer Enamels
Broming Liquids
Sodium Acetate
Belt Cement



Sulphur Black
Anthraquinone
Beta Methyl Anthraquinone
Aluminum Chloride (Anhydrous)
Dyestuffs
Soda Hyposulphite

ALUMINUM CHLORIDE

(Sublimed Anhydrous)

Highest Purity
Prompt Delivery
Attractive Prices

E.C. KLIPSTEIN & SONS CO.

644-652 Greenwich St., New York

Calcium Acetate Ferrous Chloride			
Stearate 50gal drs. ....	..	.60	
Tartrate drs. ....	..	.57	.69
CALCIUM Acetate 150lb bgs c-l	..	1.00	1.10
100lb. ....	..	3.50	
Arsenate, 100lb bbls c-l wks	..	.07 1/2	.08
Carbonate, tech 100lb bgs c-l	..	1.00	1.10
CALCIUM Chloride solid 650lb dra	..	21.00	23.00
c-l f.o.b. wks ....	..	21.00	23.00
Flake, 375lb drs c-l wks	..	27.00	
Nitrate, 220lb bbls c-l NY ton	..	52.00	
CALCIUM, Phos., tech 450lb bbls	..	.09	.10
CAMPHOR, Amer ref. 250lb bbls	..	..	.62
Jap., ref slabs 100 lb cs. ....	..	.64	.67
Carbon Bisulfide 500lb dr lo 1 NY	..	..	.06
Carbon Black 100-300lb cs	..	..	.12
c-l ....	..	..	.15
Decolorizing 40lb bgs c-l M.	..	..	.06
Carbon Dioxide, Liquid 20-25cy M.	..	..	.07
Tetrachloride, 14000lb drs del M.	..	..	.17 1/2
Casein, Standard ground ....	..	..	1.40
Cellulose Acetate, 50lb kegs. M.	..	..	.03
Chalk, drop 175lb bbls. ....	..	..	.04 1/2
Precip., light 250lb bbls csks M.	..	..	.02 1/2
Precip., heavy 560lb csks. M.	..	..	.05 1/2
CHLORINE, Liquid tank or multi-	..	..	.08
Carlots cyl wks contract. M.	..	..	.07
c-l cyl wks contract. M.	..	..	.20
Chlorobenzene, mono, 100lb dra	..	..	.27
wks c-l ....	..	..	.34 1/2
CHLOROFORM, Technical 1,000lb	..	..	.26
drums ....	..	..	.06 1/2
Chromium Acetate 20° sol'n 400lb	..	..	.16 1/2
bbls ....	..	..	.28
Fluoride, Powd., 400lb bbls M.	..	..	.48
Oxide, Green bbls ....	..	..	.16 1/2
Chrom Green, CP ....	..	..	.18
Comm. ....	..	..	5.00
Chrome Yellow ....	..	..	13.00
Clay c-l Bulk, Del., ....	..	..	1.25
COPPER, metal electrolytic 100lb	..	..	.40
Carbonate 400 lb bbls ....	..	..	.27
Chloride 250lb bbls ....	..	..	.40
Cyanide 100lb drs ....	..	..	.21
Oxide, red 100lb bbls tons M.	..	..	.25
Sub-acetate verd 440lb bbls. M.	..	..	.28
SULFATE, Carlots, bbls wks 100lb	..	..	3.80
Copperas bulk, crystal and sugar	..	..	2.95
c-l wks ....	..	..	3.25
Sugar, 100lb bbls ....	..	..	2.60
Cotton Soluble 100lb wet. ....	..	..	.55
CREAM TARTAR, USP, 300lb	..	..	.23
bbls ....	..	..	2.15
Cresosote USP 42lb chys. ....	..	..	.55
Cresosote Oil Natural 50gal drs. gal.	..	..	1.85
10-15% Tar Acid ....	..	..	.25
25-30% Tar Acid ....	..	..	.28
DIAMINOPHENOL, 100lb kegs. M.	..	..	.25
Diamyl Phthalate drums, wks. gal.	..	..	.32
Dianisidine, 100lb kegs. ....	..	..	.26
Dibutyl Phthalate wks ....	..	..	.32
Dibutyl Tartrate, 50gal drums. M.	..	..	.23
Dichloromethane drums, wks. ....	..	..	.25
Diethylamine, 400lb drs. ....	..	..	.55
Diethylaniline, 850lb drs. ....	..	..	2.00
Diethyl Carbonate, drums. ....	..	..	.28
Diethyl Phthalate 1,000 drums M.	..	..	.30
Diethyl Sulfate tech., 50 gal drs	..	..	.26
Dimethylamine, 400lb drs. ....	..	..	.32
Dimethylaniline 340lb drs. wks M.	..	..	.45
Dimethylsulfate, 100 lb drs ....	..	..	.15 1/2
Dinitrobenzene, 400lb bbls M.	..	..	.15
Dinitrochlorobenzene, 400lb bbls M.	..	..	.18
Dinitrochlorine, 300lb bbls. ....	..	..	.32
Dinitronaphthalene, 350lb bbls. M.	..	..	.31
Dinitrophenol, 350lb bbls. ....	..	..	.18
Dinitrotoluene, 300lb bbls. ....	..	..	.85
Diorthotolylguanidine, 275lb	..	..	.45
bbls wks ....	..	..	.68
Diphenylamine ....	..	..	1.75
Diphenylguanidine 100lb bbls. M.	..	..	1.10
EPSON SALT, tech., 300lb bbls	..	..	..
c-l NY ....	..	..	..
Ethyl Acetate, 99% 50gal dra gal.	..	..	..
85% Ester 110 gal drs	..	..	..
110 gal drs ....	..	..	..
Benzyl Aniline, 300lb drs. ....	..	..	..
Chloride, 200lb drs ....	..	..	..
Lactate drums wks ....	..	..	..
Methyl Ketone, 50gal drs. ....	..	..	..
Oxalate drums wks ....	..	..	..
Ethylene-Bromide 600lb drs. ....	..	..	..
Chlorhydrin, anhyd., 50gal drs M.	..	..	..
Dichloride, 50gal dra. ....	..	..	..
Glycol 50gal drums wks. ....	..	..	..
Ethylidenaniline ....	..	..	..
Feldspar bulk ....	..	..	..
FERRIC CHLORIDE tech., crys.	..	..	..
475lb bbls ....	..	..	..
Ferrous Chloride cryst tech 475lb	..	..	..
bbls ....	..	..	..

Chemicals

Ammonia — Both anhydrous and aqua are easing in their movement but no inclination to alter prices has been shown. The former is quoted at 11c@12 1/2c lb. and the latter is named at 3c lb.

Ammonium Chloride — There have been no new developments in the market since last week's reduction to \$5.05 100 lbs. The market is now in control of the domestic manufacturers and in the future, importers will probably be negligible factors, as it is believed that even a landed price of \$4.95 100 lbs., which is the present cost to importers, is a low one. Gray is extremely quiet and may be bought considerably below the scheduled prices of 5 1/4c@6c lb. Imported has been offered as low as 5c lb.

Aniline Oil — Continues outstanding among the intermediates. The heavy call from the rubber industry is responsible for this movement. Sales are at 14 1/2c lb. in carloads and 15c@16c lb. in drum lots.

Antimony — Is higher at 11 1/4c lb. but remains in very poor demand. The China situation is unchanged and seems to have little bearing on the price.

Benzene — Is still quoted at 22c gallon with further evidence of shading. There are no indications of improvement in this market owing to the gross overproduction.

Beta-Naphthol — The past month was a very good one for producers of this material and reflecting the conditions seen in the dyestuff field, this Fall should prove an active one. The price of 22c@24c lb. is very firm and holding in all quarters.

Bordeaux Mixture — There are no unusual events on the market. The demand continues quiet at 11c@12c lb. as the present market prices.

Calcium Acetate — The immediate market is unchanged at \$3.50 100 lbs. but will probably be advanced owing to the recent decline in wood distilled methanol.

Copper Carbonate — The demand continues of good size but now emanates from the wheat growers instead of the platers. The price is firmly placed at 16 1/4c@16 1/2c lb.

Copper Sulfate — The consuming demand for this item continues to flow at a rapid pace. Producers have been surprised at this and further accentuates its firmness. Aside from the possible fluctuations in the copper market, manufacturers see no reason to reduce their price from \$5.00 100 lbs. in carlots, over the dull period, experienced during September and October.

Fluorspar Para-Aminophenol

Fluorspar, 95% 220lb bags ex-	..	..	25.00
dock ....	..	..	..
FORMALDEHYDE USP, bbls 400lb	..	..	..
c-l wks ....	..	..	..
Formaldehyde Aniline 100lb drs M.	..	..	..
Furfural 500lb drums ....	..	..	..
Fuel Oil 10% Impurities dragal.	..	..	..
G SALT paste 360lb bbls. ....	..	..	..
GLAUBER'S SALT, tech., 200lb bgs	..	..	..
c-l wks ....	..	..	..
GLYCERIN, CP, 550 lb drums lb.	..	..	..
Dynamite, 100 dr ....	..	..	..
Saponification tanks ....	..	..	..
Soap, Lye tanks ....	..	..	..
Hexalene, 50gal drs., wks. ....	..	..	..
Hexamethylenetetramine drs. ....	..	..	..
HYDROGEN PEROXIDE, ....	..	..	..
100vol 140lb chys. ....	..	..	..
IRON Chloride see Ferric or Ferrous	..	..	..
Nitrate, kegs ....	..	..	..
Com'l bbls ....	..	..	..
Oxide, red Spanish ....	..	..	..
English ....	..	..	..
Isopropyl Acetate 50gal drums gal.	..	..	..
LEAD, Metal c-l NY ....	..	..	..
Acetate, white crystals ....	..	..	..
bbls wks ....	..	..	..
Arsenate, bbls., c-l wks ....	..	..	..
Nitrate, 500lb bbls wks. ....	..	..	..
Oxide, Litharge 500lb bbls. ....	..	..	..
Oxide, red 500lb wks ....	..	..	..
Oleate, bbls ....	..	..	..
White, 500lb bbls wks ....	..	..	..
White sulfate 500lb bbls wks M.	..	..	..
LIME, (Salts, see Calcium Salts)	..	..	..
Ground Stone, bags ....	..	..	..
Live, 325lb bbls tons wks 100lb	..	..	..
Lithopone, 400lb bbls c-l wks M.	..	..	..
MAGNESITE, calcined, 500lb bbls	..	..	..
Magnesium Carb., tech., 70lb bags	..	..	..
NY ....	..	..	..
MAGNESIUM, Chloride, flake 575lb	..	..	..
dra c-l wks ....	..	..	..
Imp., Flake Shipt. ....	..	..	..
Imp., fused 900lb bbls NY ton.	..	..	..
Fluosilicate crys 400lb bbls wks M.	..	..	..
Oxide, USP, light 100lb bbls M.	..	..	..
USP, heavy 250lb bbls. ....	..	..	..
Stearate bbls ....	..	..	..
Manganese Borate, 30% 200lb	..	..	..
bbls ....	..	..	..
Chloride, 600lb csks ....	..	..	..
Sulfate, 550lb drums NY. ....	..	..	..
MERCURY, metal 75 lb flask, flask	..	..	..
Meta-Nitro-aniline ....	..	..	..
Meta-Nitro-para Toluidine, 200lb	..	..	..
bbls ....	..	..	..
Meta-Phenylenediamine, 300lb	..	..	..
bbls ....	..	..	..
Meta-Toluylenediamine, 300lb	..	..	..
bbls ....	..	..	..
METHANOL (Wood Alcohol) drms	..	..	..
95% ....	..	..	..
97% drums, c-l ....	..	..	..
Pure drums, c-l ....	..	..	..
Synthetic drums, c-l ....	..	..	..
U. S. denat. grd., tanks. ....	..	..	..
Methyl Acetate drums ....	..	..	..
Methyl Acetone, 100 gal drums gal.	..	..	..
Chloride, 90lb cyl ....	..	..	..
Monethylamine, 900lb drs. ....	..	..	..
Monomethyl paraminophenol sulfate	..	..	..
100lb drs ....	..	..	..
NAPHTHALENE, flakes, 175 lb bbls	..	..	..
wks ....	..	..	..
Balls, 250lb wks ....	..	..	..
Crushed, chipped bgs wks ....	..	..	..
NICKEL, Chloride, bbls kegs. M.	..	..	..
Oxide, 100lb kegs NY ....	..	..	..
Salt single 400lb bbls NY. ....	..	..	..
Double, 400lb bbls NY. ....	..	..	..
Nicotine, Free, 40% 8 lb tins cs. M.	..	..	..
Nicotine Sulfate 10lb tins. ....	..	..	..
Nitro Cake 500lb bbls ....	..	..	..
Nitrobenzene, Redistilled 1000lb	..	..	..
wks ....	..	..	..
Nitronaphthalene, 550lb bbls M.	..	..	..
Nitrotoluene, mixed 1,000lb drs	..	..	..
wks ....	..	..	..
Orange-Mineral, 1100lb csks NY lb	..	..	..
Ortho-Aminophenol, 50lb kegs. M.	..	..	..
Ortho-Anisidine, 100lb drs. ....	..	..	..
Ortho-Dichlorobenzene 1,000 lb	..	..	..
dra. wks. ....	..	..	..
Ortho-Nitrophenol, 350lb ....	..	..	..
Ortho-Nitrotoluene, 1,000lb drs	..	..	..
wks ....	..	..	..
Ortho Toluidine c-l 350lb bbls lb.	..	..	..
Para-Aminocetanilid, 100lb bgs M.	..	..	..
Hydrochloride, 100lb kegs. ....	..	..	..
Para-Aminophenol, 100lb kegs. ....	..	..	..

Pure Phthalic Anhydride



Phthalic Anhydride of the highest purity has been produced by us in commercial quantities for over 9 years and this pure Phthalic Anhydride is well-known to the trade as SELDEN BRAND. Its form is the natural long needle crystal which dissolves and melts much more rapidly than in any other form.

We pack this material in new slack barrels containing 150-lb. net weight of Phthalic Anhydride and these packages are so constructed that their use for re-shipment is a well established fact among our customers.

Our service on Phthalic Anhydride is unexcelled and we are in position to make prompt shipment in carload lots.

Your inquiries will have our prompt attention and we will be pleased to furnish quotations and samples at your request.

THE SELDEN COMPANY

Pittsburgh, Pa., U. S. A.

**Para-Dichlorobenzene
Sodium Acetate**

Para Dichlorobenzene, 150 lb bbls	.17	.20
wks	.26	.28
Paraldehyde 110-55 gal drs	2.25	2.50
Para-Cymena Ref d. 110 gal drs gal	.50	.55
Para-Nitroacetanilid 300 lb bbls		
PARA-NITROANILINE , 300 lb bbls		
wks single bbls	.52	.53
Para-Nitrochlorobenzene, 1,200 lb drs		
wks	.32	
Para-Nitro-ortho Toluidine, 300 lb bbls	2.75	2.85
Para-Nitrophenol, 185 lb bbls	.50	.55
Para-Nitrosodimethylaniline, 120 lb bbls	.92	.94
Para-Nitroluene, 350 lb bbls	.25	.30
Para-Phenylenediamine 350 lb bbls		1.15
Para-Toluene-Sulfonamide, 175 lb bbls	.40	.41
Para-Toluene-Sulfonchloride, 410 lb bbls wks	.20	.22
Para-Toluidine, 350 lb bbls wks	.45	.47
PARIS GREEN ,		
Arsenic Basis, 500 lb kegs	.19	.20
Kegs, 100 lbs.	.21	.22
PETROLATUM , green 300 lb bbls lb	.02 1/4	.03
Phenol Small drums 250-100 lb	.17	.18
Phenyl-Alpha-Naphthylamine 100 lb kegs		1.35
Phosphorus, red 110 lb cs	.60	.65
Yellow 110 lb cs wks		.32
Phosphorous-Oxychloride 175 lb cyl	.35	.40
Phosphorous Sesquisulfide 100 lb cases		.46
Phthalic, Anhydride, 100 lb bbls wks	.18	.20
Potash, Caustic, Imp., c-l, cks		.07 1/4
Domestic, wks		.07 1/4
POTASH SALTS , rough		
Pot. Muriate basis 80% bgs ton		36.40
Pot. Sulfate, basis 90% bgs ton		47.30
Pot. & Mag. Sulfate basis 48% bgs		27.00
Manure Salts basis 30% bulk ton		18.75
Manure Salts basis 20% bulk ton		12.40
Kainit, basis, 12.4% bulk ton		9.00
Kainit, basis, 14% bulk .ton tons 10%		9.50
POTASSIUM Bicar USP 320 lb bbls	.09	.09 1/4
Bichromate, crys., 725 lb cks	.08 1/4	.08 3/4
Powd., 725 cks wks	.12	.12 1/4
Binoxiate, 300 lb bbls	.16	.17
Bisulfate, 100 lb kegs		.30
CARBONATE , 80-85% calc. 800 lb cks	.05 1/2	.05 3/4
Chlorate cryst powd 112 lb kegs wks	.08 1/4	.09
Imp., 112 lb NY	.08 1/4	.08 3/4
Chloride, crys., bbls	.05 1/2	.05 3/4
Chromate, kegs	.27	.28
Cyanide 110 lb cases	.55	.57 1/4
Metabisulfite, 300 lb bbls	.11 1/4	.12
Oxalate, neutral, 225 bbls	.16	.17
PERMANGAN , USP, crys., 500 lb & 100 lb drs wks	.14 1/4	.14 3/4
Prussiate red, 112 lb kegs	.37 1/2	.38
Prussiate, yellow 500 lb casks	.18	.18 1/4
Tartrate, neutral 100 lb kegs		.51
Titanium Oxalate, 200 lb bbls		.25
Pyridine, 50 gal drs	1.50	1.75
R SALT , 250 bbls wks	.45	.46
Salt, Common, see Sodium Chloride		
Salt Cake 94-96% c-l wks .ton	19.00	20.00
White 87% wks .ton	15.00	17.00
SALTPETRE , Double refined		
Granular, 450-500 lb bbls	.06 1/4	.06 3/4
Satin White, 500 lb bbls		.01 1/4
SILICA		
Crude, bulk, mines .ton	6.00	7.00
Refined, floated bags .ton	15.00	30.00
Air floated bags .ton	32.00	50.00
Extra, floated, bags .ton	55.00	65.00
SODA ASH , 58% light bags delivered NY 100 lb	2.14	2.29
Contract, c-l bgs wks 100 lb		1.32 1/4
58% densec-l bgs wks 100 lb		1.32 3/4
CAUSTIC , 76% solid drums del'd NY 100 lb	3.76	3.91
Ground & Flake 76% drums del. NY .100 lb	4.16	4.21
Contract c-l wks .100 lb		3.00
SODIUM ACETATE , crys 450 lb bbls wks	.04 1/4	.05

Chemicals

**Sodium Bicarbonate
Zinc Metal**

Creosote Oil — Is moving in an average manner with prices held firm throughout.

Diethyl Phthalate — Is somewhat softer but continues at 25c@28c lb. and experiencing a diminishing interest among the consumers.

Formaldehyde — Is still being quoted at 10c@10 1/4c lb. but a reduction is expected momentarily. This will reflect in the low methanol costs.

Glycerin — Dynamite is again lower this week at 20c lb. and fails to attract any buying interest. Saponification is nominally placed at 14 3/4c@14 1/2c lb. and lye is 13 1/2c lb. Chemically pure is quoted at 24c without any reaction. An improvement is due in this market.

Lead Salts — Lead metal is lower at \$6.40 100 lbs. but is not sufficient a decline to effect its derivatives. All of these salts are moving in fair volume, particularly the oxides. Orange mineral is also lively.

Paranitrilaniline — At the present time seems firm at 52c lb. with business rather slow. A change in this market would not be surprising.

Para-Toluidine — The activity in this market is confined to contract business and there are no spot transactions on the market. The market is named at 45c@47c lb. and occasionally lower figures are heard.

Phenol — Is holding its own at the current prices and moving satisfactorily towards contract consumers with little or no business done on spot.

Soda Ash — Contract withdrawals are of a steady nature and present quotation attract a fair amount of spot business.

Sodium Hyposulfite — Increased interest from the textile industry has added a brighter tone to this market and prices are maintained without difficulty at \$2.45@2.60 100 lbs.

Solvent Naphtha — Remains weak and without consumer interest at 35c gallon. Purchases below this figure are numerous.

Tin Salts — Are unchanged over the period under report.

Xylene — The market is without features at 35c gallon in tanks which is subject to shading.

OILS AND FATS

Castor Oil — Holding up well on this market with prices showing no change over the past month. Quotations are at 13c lb. for No. 1 and 12 1/2c lb. for No. 3.

SODIUM (Cont.)		
Bicarbonate 400 lb bbls NY 100 lb		2.41
Bichromate, 500 lb casks wks	.06 1/4	.06 3/4
Bisulfite, 500 lb bbls bbls wks		.08 1/4
Carbonate 350 lb bbls NY 100 lb	1.30	1.35
Chloride, tech ton	12.00	13.00
Chlorate, 112 lb kgs wks	.06 1/4	.06 3/4
Cyanide 96-98% 100 & 250 lb drums wks		.20
Fluoride, 300 lb bbls wks	.08 1/4	.09
Hypochlorate Soln 100 lb clys		.05
Hydrosulfite 200 lb bbls fob wks	.22	.24
HYPOSULFITE , tech., pea crys 375 lb bbls., wks 100 lb	2.65	3.05
Regular crys., bbls wks 100 lb	2.40	2.65
Metanilate , 150 lb bbls		.45
Naphthionate, 300 lb bbls	.55	.57
Nitrate crude, 95% 200 lb bgs		
c-l NY 100 lb		2.50
August Shipment 100 lb		2.25
Nitrate, 500 lb bbls spot mks	.08	.08 1/4
Ortho-Chloro-Toluene Sulfonate 175 lb bbls wks	.25	.27
Oxalate, neutral, 100 lb kegs	.20	.23
Perborate, 275 lb bbls	.21	.22
Phosphate, dl-sodium tech 550 lb bbls	3.25	3.55
Para-Toluene Sulfonate 175 lb bbls	.08	.09
Tri-sodium tech-lbbls 100 lb		3.90
PRUSSIAE , yellow 350 lb bbls wks	.12	.12 1/4
Pyrophosphate 100 lb kegs	.13 1/4	.14
Silicate, 40° turbid, 55 gal drums wks	.85	1.10
40° clear drs wks 100 lb	1.20	1.45
Silicofluoride 450 lb bbls NY	.04 1/4	.05
Stannate, 100 lb drums	.48 1/4	.49
Sulfanilate 400 lb bbls	.16	.18
Sulfate Anhydrous 550 lb bbls c-l wks	.02 1/4	.02 3/4
Sulfide, 60% solid, 650 lb drs	.03 1/4	.04
30% crys 440 lb bbls wks	.02 1/4	.02 3/4
Sulfite, cryst 400 lb bbls wks	.03 1/4	.03 3/4
SOLVENT NAPHTHA , 110 gal drs wks		.30
STRONTIUM , Carbonate, 600 lb bbls wks	.07 1/4	.07 3/4
Nitrate, 600 lb bbls NY	.08	.08 1/4
SULPHUR Crude, fob mines .ton	18.00	19.00
Brimstone Broken Rock 250 lb bgs c-l		2.05
Roll, 1 c-l bbls NY 100 lb	2.65	2.85
Flour, Heavy bgs c-l		2.50
For Dusting c-l 99 1/4% 100 lb bags NY		2.40
Flowers 100% 155 lb bbls NY c-l		3.45
Sulfur Chloride, red, 700 lb drs wks	.05	.05 1/4
Yellow, 700 lb drs wks	.03 1/4	.04 1/4
Sulfur Dioxide, 150 lb cyl	.08	.08 1/4
Extra Dry, 100 lb cyl	.17	.19
Sulfuryl Chloride, 600 lb drs	.65	.70
Tar Coke Oven, Tks., wks .gal	.07	.08
Tetralene, 50 gal drs wks		.20
Thiocarbamilid, 170 lb bbls	.22	.24
TIN , metal Strait, NY		.64
Bichloride, 50% sol'n 100 lb bbls wks		.19
Crystals, 500 lb bbls wks		.44 1/4
Oxide, 300 lb bbls wks		.38 1/4
Tetrachloride, 100 lb drs wks		.38 1/4
Titanium Oxide 200 lb bbls		.40
Pigment, bbls wks	.13 1/4	.14
Toluidine, 350 lb bbls	.90	.94
Toluene, 8,000 gal tnk cars wks gal		.35
110 gal drs wks		.40
Toluidine, Mixed, 900 lb drs wks	.31	.32
Toner Lithol Red bbls	.85	.90
Para Red bbls	.75	.80
Toluidine	1.75	1.80
Triacetin, 50 gal drs wks	3.60	3.90
Triphenylguanidine	.69	.73
Urea Pure, 112 lb cases	.18	.20
Vermilion English kegs	1.90	1.95
XYLENE , 10° tanks wks .gal		.38
Com'l tanks wks		.36
Xylidine crude		.35
ZINC METAL , high grade slabs c-l NY		6.50



CONSTANT supervision of manufacturing processes and careful searching for advanced methods, account in part, for SOLVAY success and leadership.

Solvay Benzaldehyde
 Solvay Caustic Potash Liquor 45%
 Solvay Calcium Chloride 73%-75%
 Solvay Ammonium Chloride
 Solvay Ammonium Bicarbonate
 Solvay Paradichlorobenzene
 Solvay Sodium Nitrite
 Solvay 58% Soda Ash
 Dense—Light
 Solvay Fluf (Extra Light Soda Ash)
 Solvay 76% Caustic Soda
 Solid—Flake—Ground
 Solvay Super Alkali
 Solvay Snowflake Crystals
 (Trademark Registered)
 Solvay Laundry Soda
 Solvay Cleansing Soda
 Solvay Tanners Alkali
 Solvay Tanners Soda
 Solvay Liquid Caustic Soda

Solvay Sales Corporation



Alkalies and Chemical Products
Manufactured by The Solvay Process Company

40 Rector Street

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Indianapolis

Cleveland

Philadelphia

Zinc Ammonium Chloride Soya Bean Oil

ZINC Amm Chloride, pwd 400 lb bbls.	...	.06%
Carb. tech., bbls NY	...	.09%
Chloride, fused 600 lb drs wks lb	...	.06
Granulated, 500 lb bbls wks lb	...	.06%
Solution 50% tms wks 100 lb	...	3.00
Cyanide, 100 lb drs	...	.40
Dust, 500 lb bbls c-1 wks	...	.09
Oxide, Amer., bags wks	...	.07%
French, 300 lb bbls wks	...	.10%
Sulfate, 400 lb bbls wks	...	.03%
Sulfide, 500 lb bbls	...	.30
Sulfocarbonate, 100 lb kegs	...	.29

Oils & Fats

Castor, No. 1, 400 lb bbls	.13	.13%
No. 3	.12%	.13
Brown, 400 lb bbls	...	.18
China Wood bbls spot NY	.17%	.17
Tanks, Spot NY	...	nom.
Coast tanks—Aug.	.15%	.15
Coconut Ceylon 375 lb bbls NY	.09%	.09
8,000 gal tanks NY	.08%	.09
Cochin, 375 lb bbls NY	.10	.10%
Tanks, NY	...	.09%
Manila bbls NY	.09%	.09
Tanks NY	.08%	.08
Tanks Pacific Coast	.08%	.08
Edible bbls NY	.12	.12%
Cod Newfoundland, 50 gal bbls gal	.63	.64
Tanks, NY	.59	.61
Cod Liver, see Cod Liver Oil under Chemicals	...	...
Conra, bags	.08	.08%
Corn, ref. 375 lb bbls NY	.12	.12%
Tanks	.11	.11%
Crude tanks mills	.08%	.09
Bbls, NY	.10%	.10%
Cottonseed Crude mill	.08%	.09
PSY 100 bbls spot	...	.10%
Sept-Dec	.11	.11%
White, 100 bbls lots NY	...	.11%
Degras, Amer., 50 gal bbls NY	.04%	.04%
English, light bbls NY	.05%	.05%
Brown, bbls NY	.04%	.04%
Greases choice white bbls NY	.10	.10%
Yellow	...	.07%
Brown	...	.07
LARD OIL, edible prime	...	.16
Off prime bbls	...	.12%
Extra bbls	...	.11%
Extra No. 1 bbls	...	.11%
LINSEED, raw c-1 bbls spot	...	10.4
Five bbls raw	...	11.0
Tanks, raw	...	9.5
Menhaden tanks Balt	...	.45
Light pressed, bbls NY	.63	.64
Yellow pressed, bbls NY	.66	.67
Blown bbls NY	...	.90
Extra bleached bbls NY	.67	.68
Mineral Oil, white, 50 gal bbls gal	.80	.90
Russian gal	.95	1.00
Neatsfoot 20 deg. ct., bbls NY	...	.18
Pure bbls NY	...	.15%
CP bbls NY	...	.17%
Extra bbls NY	...	.11%
Oil Oil, No. 1 bbls NY	...	.14%
No. 2 bbls NY	...	.11%
No. 3 bbls NY	...	.11
OLIVE, denatured bbls NY	1.68	1.75
Edible, bbls NY	...	2.15
Foots bbls NY	.09%	.09%
Palm Lagos, 1,500 lb casks	...	.07%
Niger casks	.07%	.7%
Palm Kernel Casks	.09	.09%
Peanut refined bbls NY	.15%	.16
Crude, bbls NY	.12	.12%
Perilla, bbls NY	.14%	.15
Tanks Coast	...	nom.
Poppyseed bbls NY	1.70	1.75
Rapeseed bbls NY Japanese	.85	.87
English	.86	.87
Blown bbls NY	1.00	1.02
Red Oil, distilled bbls	.09	.09%
Tanks	.09%	.10%
Tanks	...	.08%
Salmon, 8,000 gal tks Coast	.50	nom.
Sardine, Tanks Pacific Coast	...	.45
Sesame edible yellow bbls	.12%	.13%
White	.14	.15
Sod Oil, bbls NY	...	.40
SOYA BEAN, crude tks Pac Cat.	.09%	.09%
Crude, tks NY	.10%	.10%
Crude, bbls NY	.12	.12%
Refined bbls NY	...	.13

Oils & Fats

Chinawood Oil — The market on the Coast is holding up well with sales reported early this week at 15½¢@15¾¢ lb. in tank cars for early shipment. The spot market is firm at 17¾¢ lb. in barrels. Factors report a lack of advices from China as to replacement costs and this is having an upward effect on the market.

Coconut Oil — The markets on the Coast for both Manila and Ceylon are holding up well at 8¾¢ lb. and 8½¢ lb. respectively. The spot market is rather routine at the moment, probably due to the three day holiday.

Cottonseed Oil — The firm position of both the spot and future markets continues this week. Closing prices on Saturday last were 10.80¢ lb. on spot, 11¢ lb. for September, 11.07¢ lb. for October, 11.40¢ lb. November and 11.52¢ lb. December. Sales continue in good volume and the market is posted as strong and advancing. Crude oil is likewise higher in all sections at 9½¢ lb.

Greases — All grades are very strong this week and producers have advanced as follows; choice white, 10¢ lb; yellow, 7½¢ lb. and brown, 7¢ lb.

Lard Oil — With the exception of edible prime, which remains unchanged, prices are higher this week and strong at 12¾¢ lb. for off prime; 11¾¢ lb. for extra and 11½¢ lb. for extra No. 1.

Linseed Oil — The spot market is again lower this week with open quotations at 10.4¢ lb. for carlots in barrels, and sellers willing to shade this price a point on firm business. The primary seed markets are also easy. Inquiry has been better for the past few days from consuming channels.

Menhaden Oil — Holding up well and in good demand at 45¢ gal. for crude oil, Baltimore. Light pressed is named at 63¢ gal.; yellow pressed at 66¢ gal. and extra bleached at 67¢ gal.

Olive Oil — An advance in foots on spot due to reported short stocks in Spain featured the market over the week. Sales have been made in small lots at 9¾¢ lb. on spot. Denatured oil is unchanged and moving routinely at \$1.65@\$1.70 lb.

Rapeseed Oil — On a noticeable improvement in demand the price of Japanese oil is higher this week on spot at 84¢@85¢ gal. English and blown are also in some demand but quiet.

Sperm Oil Glue

Sperm 38° ct., blehd, bbls NY gal	.84	.85
45° cold test blehd bbls NY gal.	.79	.80
STEARIC ACID		
Double pressed, bags dist.	.11%	.11%
Double pressed, bgs saponified	.11%	.12
Carlots	...	.11
Triple pressed bgs dist	.13%	.13%
Carlots	...	.13
Stearine Oleo bbls	...	.12
Tallow edible tierces	...	.09%
City, Extra loose	...	.08%
Tallow Oil, acidless tks NY	...	.10
Bbls c-1 NY	...	.11%
Whale, nat winter bbls NY	.76	.78
Blehd, winter bbls NY	.78	.80
Extra blehd bbls NY	.80	.82
Turkey Red, Oil, single bbls	.11	.12
Double	.14	.16

Industrial Raw Materials

Albumen, egg edible	.90	.97
Tech., 100 lb drs	.85	.86
Blood, 225 bbls	.45	.55
Vegetable edible	.60	.65
Technical	.50	.55
Annatto, fine	.41	.48
Archil, double 600 bbls	.13	.14
Triple, 600 lb bbls	.14	.15
Cone, 600 lb bbls	.18	.20
Asbestine c-1 wks	...	14.75
Bees Wax, white cases	.57	.58
Yellow, refined cases	.41	.42
Crude, bags	.38	.39
Blood dried fob NY	...	4.75
Chicago	...	4.10
S Am Shipment	...	4.75
Bone Raw Chicago	ton 29.00	30.00
Bone Meal, 3 & 50 imp	ton 30.00	37.00
Bone Ash 100 lb kegs	...	.06
Black 200 lb bbls	...	.08%
Candelilla Wax, bags	.28	.29
Carnauba Wax Flor bags	.50	nom.
No. 1, Yellow, bags	.57	.59
No. 2, regular bags	.54	.56
No. 2, N. Country bags	.36	.38
CHARCOAL		
Hardwood, lump, bulk wks	.18	.19
Wood, powd., 100 lb bbls	.04	.05
Willow, powd 100 lb wks bbls	.06	.06%
Chestnut clarified 25% tks wks	.02	.02%
Bbls, wks	.03	.03%
Powd., 60% 100 lb bags wks	...	.07
Decolorized bags wks	.06%	.07
Cudbear, English	.16	.17
Cutch Bangoon, 100 lb bales	...	.18%
Tablets, 120 lb boxes	.13	.14
Borneo solid, 100 lb bales	.05%	.05%
Cyanamide, bulk, c-1 wks Amm unit	1.82%	1.90
Dextrin, white corn 140 lb bags	...	3.72
c-1	...	100 lb
Canary	...	100 lb
Potato, white 220 lb bags 1c-1 lb	...	.08%
Yellow, 220 lb bags	...	.08%
Taploca, 200 bags 1c1	.08	.08%
Divi Divi Extrat	.04	nom.
Pods, bags ship	ton 49.00	50.00
Egg Yolk, 200 lb cs	.75	.77
Ester Gums Dark, 280 lb bbls	.13%	.14
Light 280 bbls	.14	.14%
Fish Scrap, dried wks	...	4.25-10
Acid Bulk 7 & 3½ Deliv	...	nom.
Norfolk & Balt basis	...	nom.
Flavine Lemon 55 lb cs	1.10	1.15
Orange 70 lb cs	.85	.90
Fossil Flour	.02%	.04
Fustic, solid 50 lb boxes	.20	.23
Crystals, 100 boxes	.20	.22
Liquid 51° 600 lb bbls	.09	.10
Fustic, sticks	ton 30.00	32.00
Chips	.04	.05
Gall extract	.20	.21
Gambier 25% liq., 450 lb bbls	.12	.14
Common 200 lb cases	.08	.09
Singapore, cubes, 150 lb bags	.12	.15
Gelatin Technical 100 lb cs	.45	.50
bags c-1 NY	...	100 lb
Glucose (Grape Sugar) dry 70°	3.14	3.24
80° bags c-1NY	3.24	3.34
Tanners' Spcl 100 lbs 100 lb	...	3.14
GLUE, pure white bbls	.22	.26
Medium white, bbls	.20	.24

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Magnesium Carbonate	Formaldehyde
Magnesium Oxide	Phenol
Whiting	Chlor Phenols
Benzol	Sulphuryl Chloride
Thionyl Chloride	

Gums
Oak Bark

Industrial Raw Materials

Osage Orange
Whiting

GUM, Accroides, Red, coarse and fine, 140-150 lb bags	.03%	.04%
Powdered, 150 lb bags	.06	.06 1/2
Accroides, Yel. 150-200 lb bags	.18	.20
Animi (Zanzibar) Bean and pea 250 lb cases	.40	.45
Glassy, 250 lb cases	.60	.65
Asphaltum, Baradoes, Manjak 200 lb bags	.09	.12
Egyptian, 200 lb cases	.15	.17
Gilsonite select 150 lb bags ton	55.00	60.00
Benzoin, Sumatra, Tech., 120 lb cases	.30	.32
Copal, Congo, 112 lb bags		
Water White, .....	.35	.36
Light Amber, .....	.12 1/4	.14
Dark Amber, .....	.08 1/4	.09
Clean Opaque, .....	.14	.15
Copal, East Indian 224 lb cases 180 lb bags—		
Pale, E. I. Bold .....	.17	.17 1/2
Pale, E. I. Chips .....	.07 1/2	.08
180 lb bags—		
Copal, Manila, 180-190 lb Baskets—		
Pale Bold, Loba A, .....	.16	.16 1/2
Pale Bold, Nubs, Loba B .....	.15	.15 1/2
Pale, Bold, Loba C .....	.13	.13 1/2
Pale Nubs, P. N. .....	.12	.12 1/2
Pale Bold, 224 lb cases .....	.16	.18
Copal, Pontinak, 24 lb cases—		
Batavia E Seeds 136 lb cs.	.25	.25 1/2
Pale, genuine spot chips lb	.13	.14 1/4
Damar Batavia standard 136 lb cases	.26 1/2	.27
Batavia E Seeds 136 lb cs.	.18 1/2	.19
Batavia F Splinters 136 lb Cases and bags	.14	.14 1/2
Batavia, Dust, 160 lb bags	.10 1/2	.11 1/2
Singapore No. 1 224 lb cs.	.34	.36
Singapore No. 2, 224 lb cs.	.22 1/2	.23 1/2
Singapore No. 3, 180 lb bags	.11	.11 1/2
Eleml, No. 1, 80-85 lb cs.	.13	.13 1/2
No. 2, 80-85 lb cases	.12	.12 1/2
No. 3, 80-85 lb cases	.11 1/2	.12
Kauri No. 1, 224-226 lb cs.	.60	.61
No. 2, fair pale 224-226 lb cases	.38	.40
Bush Chips 224-226 lb cases	.38	.40
Pale Chips 224-226 lb cases	.24 1/2	.26
Brown Chips 180-200 lb bags	.10	.12
Sandarac Prime quality 220 lb bags and 300 lb casks	.25	.26
Graphite crude 220 lb bags	15.00	35.00
Flake, 500 lb bbls	.05	.09
HEMATINE, Paste, 500 lb bbls	.09	.12
Crystals, 400 lb bbls	.12	.20
Hemlock, 25% 600 lb bbls wks	.03 1/2	.03 3/4
Bark .....	..	16.00
Hyperic, 51° 600 lb bbls	.12	.15
Indigo Madras bbls	1.28	1.30
20% paste drums	.14	.15
Solid powd .....	.07 1/2	.08
Japan Wax 224 lb cs	..	.18
KIESELGUHR, 95 lb bags NY	60.00	70.00
Larch 25% 600 lb bbls wks	.03 1/2	.04
Powd. 100 lb bags wks	.08	.09
Logwood 51° 600 lb bbls	.08 1/4	.08 1/2
Lower grades	.07 1/2	.08
Solid, 50 lb boxes	.12	.15
LOGWOOD stiches	26.00	27.00
Chips 150 lb bags	.03	.03 1/2
Madder, Dutch .....	..	.30
Mangrove 55% 400 lb bbls	.03 1/2	nom.
Marble Flour bulk	10.00	12.00
Mangrove Bark, African	37.00	38.00
Montan Wax, crude bags	.06 1/2	.07
Bleached bags	.24	.27
Myrobalans 25% liquid bbls	.04	.04 1/2
50% solid 50 lb boxes	.08	.08 1/2
Myrobalans, bags, J1	40.00	41.00
B2 .....	..	nom.
B2 .....	..	34.00
J2 .....	..	36.00
Nitrogenous Material bulk	..	3.60
WUTGALLS, Chinese, bags	.17	.18
Aleppy bags	.25	nom.
Powd. bags	.22	.24
Oak Bark, whole	20.00	23.00
Ground	45.00	50.00
Oak, tanks wks	..	.03 1/2
23-25% liq. 00 lb bbls wks	.04	.04 1/2

Albumen — Egg albumen is quiet and unchanged at 90c@97c lb. There has also been no change in the price of vegetable albumen, but a steady, sound demand for both edible and technical. Production of the technical was resumed on September 1.

Bees Wax — Is lower to 57c@58c lb. and does not furnish any life to the market. Yellow refined still holds to 41c@42c lb. while crude is down to 38c@39c lb. The demand has been quiet for some time and is expected to revive again, shortly.

Blood — Dried blood again ascended to \$4.75 unit. The market has been strong for some time and local stocks are not very plentiful. The consumers are holding off, thinking this advance to be false, but sellers are firm in their figures.

Candelilla Wax — Is easier on an over-supply and is now offered freely at 28c@29c lb.

Carnauba Wax — All grades have been unchanged and continue to move quietly and without feature.

Dextrin — This market is sound and fair without any new business and prices are stationary but point upwards. Corn dextrin is quoted in cars at \$3.72 100 lbs. and canary \$3.77 100 lbs.

Divi Divi — Is still high for shipment at \$49.00@\$50.00 and evidently proves interesting to consumers who although they are not yet contracting are interested to the extent of frequently inquiring of conditions.

Fish Scrap — The situation appears somewhat easier this week, probably due to the lack of demand in anticipation of the holiday but prices are high and firm with no relief seen in the primary markets.

Japan Wax — Has declined to 18c lb. and still fails to arouse any interest among the consumers. An unusual weakness has been seen in this market for the past few months and this quotation serves as the spot and shipments price.

Myrobalans — Are active and interesting for future shipment. Prices are the same as previously quoted at \$40.00@\$41.00 ton for J1. Rosins — The price structure is holding steadily but the demand has not been very good.

Tankage — South American tankage is tight and now advanced to \$4.65 & 10 unit and prices at the remaining selling basis are unchanged and not inclined to weakening.

Osage Orange 51° liquid	.07	.07 1/2
Powd, 100 lb bags	.14 1/2	.15
Crystals	.16	.17
Paracouaron, 230 lb drums	.12	.15
Paraffin, ref'd. 200 lb cs alabs		
118-120 deg. M.P.	.08	.09
123-127 deg. M.P.	.06 1/2	.08
128-132 deg. M.P.	.07 1/2	.07 3/4
133-137 deg. M.P.	.08	.08 1/2
138-140 deg. M.P.	.08 1/2	.10
Phosphate Acid, 15% Bulk wks ton	..	8.50
Phosphate Rock, fob, mines		
Florida Pebble 68%	3.00	3.15
Florida Pebble 70%	3.50	3.65
Florida Pebble 72%	4.00	4.15
Florida Pebble, basis 75%-74% .....	..	5.00
Florida Pebble, 75% .....	..	5.75
Florida Pebble, basis 77%-76% .....	..	6.25
Tennessee, 72% .....	..	5.00
Pine Oil, stm., dist. bbls	.63	.70
Destructive dist. .....	.80	10.00
Plaster Paris, tech., 250 lb bbls	..	3.30
Pumice Stone, lump, 250 lb bbls	.04	.06
Lump, bags .....	.04	.05
Powdered, 350 lb bbls	.02 1/2	.03
QUEBRACHO, 35% liquid tanks	.03	.03 1/2
450 lb bbls c-l .....	.03 1/2	.04
35% bleaching, 450 lb bbls	.04	.05
Solid 63% 100 lb bales c-l	.05	.05 1/2
Clarified, 64% bales	..	.05
Quercitron, 61° 450 lb bbls	.06 1/2	.07
Solid, 100 lb boxes	.10	.13
Quercitron, bark, rough	..	14.00
Ground	34.00	35.00
Rosins (Solid in 600 lb bbls gross for net)		
D .. 10.35 10.50 I ..	10.40	10.60
R .. 10.35 10.50 K ..	10.40	10.60
E .. 10.35 10.50 M ..	10.45	10.60
F .. 10.35 10.50 N ..	10.70	10.90
G .. 10.35 10.50 WG ..	11.35	..
H .. 10.35 10.50 WW ..	11.65	..
(Sold in 600 lb bbls net, quotations based on a unit of 280 lb)		
Rosin Oil first run 50 gal bbls	..	.57
Second run bbls	..	.62
Rotten Stone lump imp. bbls	.07	.08
Lump selected, bbls	.09	.13
Powdered, bbls	.02	.05
Domestic bags mines	34.00	30.00
Sage Flour 150 lb bags	.04 1/2	.05
Shellac, T. N., bags	.53	.54
Superfine bags	.56	.57
Garnet, bags	.53	.54
Bone dry, bags	.63	.65
Spruce, 25% liquid tanks, wks	.01	.01 1/2
bbls .....	..	.01 1/2
Powd, 50% 100 lb bags wks	.02	.03 1/2
Starch, rice, 200 lb .....	.09 1/2	.10
Powd. 140 lbs. c-l .....	..	3.07
Pearl, 140 lb bags	..	2.97
Potato domestic, 200 lb bags c-l	.06	.06 1/2
Imported bags duty paid	.06 1/2	.06 3/4
Wheat, dom., thick bags	.06 1/2	.07
Thin, bags	.09 1/2	.10
Sol. Potato .....	.08	.08 1/2
Sumac, extract, liq 450 lb bbls	.05	.06
CP. 450 lb bbls	..	.10 1/2
Stainless, 600 lb bbls	.11	.11 1/2
Sumac, Stelly leaves 100 lb bags ton	130.00	nom.
Ground shipment .....	..	72.00
Virginia, 150 lb bags	55.00	60.00
TALC, Italian 220 lb bags NY	40.00	50.00
Refined, white bags	50.00	55.00
French, 220 lb bags NY	30.00	35.00
Refined, white bags	38.00	45.00
Dom., crude, 100 lb bags NY	12.00	15.00
Refined 100 lb bags NY	16.00	18.00
Tankage, ground NY	4.75	& .10
High grade fob, Chicago	3.75	& .10
So. Am. cif.	4.70	& .10
Taploca Flour, high grade bags	.04 1/2	.05
Medium grade, bags	.03 1/2	.04
Tar, Kiln-burnt	15.00	16.00
Retort bbls	16.00	16.50
Tripoli, 500 lb. bbls	2.00	3.00
Turpentine Spirits bbls	..	.62
Wood steam Dist. bbls	49%	.55
Valonia Cups 30-31% tan	43.00	44.00
Beard, 42% ton bags	59.00	60.00
Mixture ark bags	48.00	50.00
Wattle Bark, bags	57.00	58.00
Extract 55% dble bags ex-dock	..	.05 1/2
Whiting 200 lb bags c-l wks 100 lb	..	1.25
Alba bags NY c-l	13.00
Gilders, bags NY c-l	1.35



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Nitric Acid
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Salt Cake

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Potassium Chrome Alum
Phenol
Phthalic Anhydride
Paranitraniline

Paradichlorobenzene
Orthodichlorobenzene
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Sept. 1 to 6

ACETYL—Cellulose, 4 cks., Kuttroff Pickhardt & Co., Rotterdam; **Compound**, 12 drs., Kuttroff Pickhardt & Co., Rotterdam

ACIDS—Cresylic, 25 drs., P. H. Watson Co., Rotterdam; **Stearic**, 20 bgs., 20 cs., American Bluefrisveem Inc., Rotterdam; **Tartaric**, 134 cks., W. Neuburg, Rotterdam

ALUMINUM POWDER—1 cse., International Composition Co., Southampton

AMMONIUM SALTS—Muriate, 25 cks., C. D. P. Field Co., Bristol; 180 cks., Kuttroff Pickhardt & Co., Rotterdam; **Sulfocyanide**, 3 cks., Hans Hinrichs Chem Corp., Rotterdam

ARGOLS—136 bgs., Tartar Chem Works, Leghorn

ARSENIC—617 brls., American Smelting & Refining Works, Tampico

BARIUM—Oxide, 32 cks., Oakland Chem. Co., Rotterdam

BARYTES—13 cks., 150 bgs., C. J. Osborn, Bremen; 500 tons, Ore & Chem. Corp., Rotterdam

BLANC FIXE—25 cks., African Metals Corp., Rotterdam; 163 cks., A. Hurst & Co., Hamburg

BERLIN BLUE—10 cks., Fezandie & Sperrle, Rotterdam

BONE MEAL—1104 bgs., H. J. Baker & Bro., Rotterdam

BONE—Phosphate, 680 bgs., H. Sinclair Inc., Rotterdam

BUTYL—Acetate, 275 drs., Kuttroff Pickhardt & Co., Rotterdam

CAMPHOR—Synthetic, 280 cs., E. I. DuPont De Nemours Co., Rotterdam

CHALK—550 bgs., A. Klipstein & Co., Antwerp; 1560 bgs., Hammill & Gillespie, Antwerp; 50 brls., A. Klipstein & Co., Antwerp; **Precipitated**, 650 bgs., 25 cks., H. J. Baker & Bro., Bristol

CASEIN—399 sks., Equitable Trust Co., Havre

CARBON—110 bgs., L. A. Salomon & Bro., Rotterdam; 750 bgs., Glidden Food Products Co., Rotterdam; 51 cks., L. A. Salomon & Bro., Rotterdam

CHEMICALS—13 cks., Pfaltz & Bauer, Rotterdam; 50 drs., American Bluefrisveem Inc., Rotterdam; 81 cks., Hummel & Robinson, Rotterdam; 226 cks., 114 bgs., Rhodia Chem Corp., Bremen; 166 cks., Hummel & Robinson, Rotterdam; 1 cse., Pfaltz & Bauer, Rotterdam; 176 cks., Hummel & Robinson, Rotterdam; 5 cs., J. W. Lyon Co., Hamburg; 44 cs., Hoffman La Roche Chem Co., Hamburg; 65 cks., Jungmann Co., Hamburg; 65 cks., Jungmann Co., Hamburg; 9 cs., J. L. Hopkins Inc., Hamburg; 10 drs., 100 brls., H. W. Peabody & Co., Hamburg; 32 drs., Pfaltz & Bauer, Hamburg; 60 drs., Hans Hinrichs Chem Corp., Rotterdam; 263 cks., 160 balloons, Roessler & Hasslacher Chem. Corp., Rotterdam; 150 cks., Stanley Doggett Inc., Rotterdam

CHINCHONIDINE—30 cs., R. W. Greeff & Co., Rotterdam

CINNABAR—2 brls., A. Hurst & Co., Leghorn

CLAY—10 bgs., Perfection Stove Co., Bristol; 18 cks., J. Goebel & Co., Bremen; 528 bgs., M. Greenbaum, Rotterdam; **Blue**, 30 tons, Moore & Munger, Bristol; **China**, 25 cks., C. T. Wilson Co., Bristol; 258 bgs., National City Bank, Bristol; 308 bgs., L. A. Salomon & Bro., Bristol; 267 bgs., order, Bristol; 1808 tons, 13 cwt., Atlantic Nat Bank, Fowey; 453 tons 4 cwt J. Richardson Co., Fowey; 1009 tons, 5 cwt., Papermakers Mfg. Co., Fowey

COLORS—100 cks., C. J. Osborn Co., Rotterdam; 59 cks., General Dyestuff Corp., Rotterdam; 65 cs., M. Grumbacher, Hamburg; 100 cs., Lo Curto & Funk, Vera Cruz; 7 cts., Fezandie & Sperrle, Hamburg; 2 cks., National City Bank, Havre; 22 cks., Carbic Color & Chem Co., Havre; 3 cks., Ciba Co., Havre; 38 cks., Geigy Co., Havre; 66 cans, Ciba Co., Havre; 2 cs., Sellers Transport Co., Havre; 40 cks., C. J. Osborn Co., Rotterdam; 137 pgs., General Dyestuff Corp., Rotterdam; 1 cse., B. F. Drakenfeld Co., Liverpool; 2 drs., E. Ritter, Hamburg; 10 cks., Lo Curto & Funk, London; 3 cs., J. C. Robold & Co., London; 2 cks., Fidelity Trust Co., Antwerp; 10 cks., American Ex-

change Irving Trust Co., Antwerp; **All-zarine**, 9 cks., General Dyestuff Corp., Rotterdam; **Bronze Powder**, 18 cs., B. F. Drakenfeld Co., Bremen; 4 cs., W. H. Kemp & Co., Bremen; 13 cs., Hensel Bruckmann & Lorbacher, Bremen; 16 cs., L. Uhlfelder Co., Bremen; **Coal Tar**, 116 cks., 55 pgs., 1 cse., General Dyestuff Corp., Rotterdam; 78 cks., 1 cs., General Dyestuff Corp., Rotterdam; **Earth**, 50 cks., Heller & Merz, Bremen; 4 cs., B. F. Drakenfeld Co., Bremen; 10 cks., F. B. Vandegrift Co., Rotterdam; 53 cks., F. V. Geisten, Rotterdam; **Indigo**, 24 cks., General Dyestuff Corp., Rotterdam

COAL TAR PRODUCTS—38 cks., General Dyestuff Corp., Rotterdam

COPPER—Crimson Sulfoxide, 8 cks., Federal Composition Co., Liverpool

EARTH—Red, 25 cks., Reichard Coulston Inc., Bristol; 20 cks., American Hawaiian S. S. Co., Bristol; **Sienna**, 5 cks., J. Lee Smith & Co., Leghorn

EPSOM SALTS—200 cks., The Goldschmidt Corp., Bremen

EXTRACTS—Archil Liquor, 5 cks., W. A. Ross & Bro., Liverpool; 10 cks., Earl & Co., Liverpool; **Quebracho**, 6705 bgs., International Products Co., Buenos Aires; 4110 bgs., First Nat Bank Boston, Buenos Aires; 693 bgs., Nat Bank of Commerce, Buenos Aires

FERTILIZER—3629 bgs., Synthetic Nitrogen Products Corp., Hamburg

FULLERS EARTH—250 bgs., L. A. Salomon & Bro., Bristol

GALLNUTS—178 bgs., K. Mertig, Hankow

GELATINE—44 cs., P. C. Zuhlke, Rotterdam; 62 brls., 5 kegs, H. A. Sinclair, Rotterdam; 60 cs., American Express Co., Rotterdam; 40 cs., P. Puttmann, Bremen; 2 cs., Eastman Kodak Co., Bremen; 32 brls., H. A. Sinclair, Rotterdam

GLAUBER SALTS—100 cks., Kuttroff Pickhardt & Co., Rotterdam; 125 cks., Monmouth Chem Corp., Hamburg

GLUE—50 pgs., Pfaltz & Bauer, Havre; 200 bgs., S. Isaacs Co., Rotterdam

GLYCERINE—50 drs., Armour Soap Works, Rotterdam; 50 drs., Armour Soap Works, Valencia; 50 drs., Colgate & Co., Hamburg; 50 drs., Armour & Co., Hamburg; 44 drs., Armour & Co., Hamburg; 490 drs., order, Hamburg; 10 drs., C. L. Huisking Inv., Rotterdam

GUMS—Copal, 140 bgs., S. Winterbourne Singapore; 128 bgs., L. C. Gillespie & Co., Singapore; 64 bgs., order, Singapore; 109 bks., Innes & Co., Macassar; 255 bks., L. C. Gillespie & Co., Macassar; 75 bks., Sino Java Handels, Macassar; 136 bks., Gravenhurst & Co., Macassar; 69 bks., France Campbell & Darling, Macassar; 67 bks., G. H. Lincks Co., Macassar; 140 bks., S. Winterbourne, Macassar; **Damar**, 50 cs., A. Klipstein & Co., Singapore; 500 cs., order, Batavia 64 bgs., Chem Nat Bank, Singapore; 256 bgs., Paterson Boardman & Knapp, Singapore; **Perillo**, 4 bls., Balfour Williamson Co., Pto Colombia; **Tragacanth**, 5 cs., W. Mohrmann, Southampton

HARTSHORN SALTS—20 cks., Philipp Bros., Rotterdam

INTERMEDIATES—18 cks., General Dyestuff Corp., Rotterdam

IRON—Chloride, 60 cks., The Goldschmidt Corp., Rotterdam; **Oxide**, 20 cks., C. J. Osborn Co., Bristol; 28 cks., J. A. Mc Nulty, Liverpool; 16 cks., Reichard Coulston Inc., Liverpool; 18 cks., J. Lee Smith & Co., Liverpool; 80 brls., C. K. Williams Co., Malaga; 205 brls., Wishnick Tumpeur Co., Malaga; 80 brls., J. Lee Smith & Co., Malaga; 100 brls., E. M. & F. Waldo, Malaga; **Powder**, 10 cs., Cohen & Mann, Bremen

LIME—Carbonate, 288 bgs., H. W. Peabody & Co., Marseilles

LITHOPONE—500 cs., B. Moore Co., Rotterdam; 500 cks., B. Moore Co., Rotterdam

MAGNESITE—105 brls., Brown Bros. & Co., Rotterdam; 44 brls., 700 bgs., Brown Bros. & Co., Rotterdam; 100 bgs., A. Kramer & Co., Antwerp

MAGNESIUM—Chloride, 5 drs., Carborundum Co., Liverpool; 88 drs., Innis Speiden & Co., Hamburg; 179 drs., Composition Material Co., Hamburg

OCHRE—95 brls., Reichard Coulston, Marseilles

OIL—Coconut, 766 tons, order, Manila; **Cod**, 20 brls., R. Badcock & Co., Liverpool; 70 cks., Cook Swan & Young Corp., Halifax;

8 cks., Bowring & Co., Halifax; **Degras**, 25 brls., R. Badcock & Co., Liverpool; **Ground Nut**, 25 brls., Welch Holme & Clark, Rotterdam; **Olive**, 50 cs., V. De Pasquale, Genoa; 200 cs., B. Benden, Genoa; 50 cs., F. Romeo & Co., Genoa; 203 cs., Von Bremen Asche & Co., Genoa; 225 cs., Cellas Inc., Genoa; 175 cs., G. Sasso & Sons, Genoa; 100 cs., Satz Wholesale Grocery Co., Genoa; 495 cs., J. P. Smith & Co., Marseilles; **Palm Kernel**, 291 brls., E. F. Jones Chem. Co., Liverpool; **Peanut**, 5 brls., Lamont Corliss Co., Rotterdam; **Poppy Seed**, 5 drs., Fezandie & Sperrle, Rotterdam; **Rapeseed**, 200 drs., Mitsui & Co., Kobe; 296 tons, Vacuum Oil Co., Kobe; 300 drs., Mitsui & Co., Osaka; 200 drs., Mitsui Bussan Kaisha, Osaka; 100 drs., Cook Swan & Young Corp., Osaka; 100 drs., Mitsui Bussan Kaisha, Nagoya; 5 cks., S. Blumenthal, Rotterdam; **Seal**, 20 cks., Bowring & Co., St. Johns; **Sesame**, 200 drs., J. C. Francesconi, Liverpool; **Soya Bean**, 302 tons, Mitsui & Co., Dairen 397 tons, Mitsubishi Shoi Kaisha, Dairen; **Sulfur**, 88 brls., Banca Comu Italo, Naples; 150 brls., Leghorn Trdg Co., Leghorn; 120 brls., National City Bank, Bari; 400 brls., Leghorn Trdg Co., Messina; **W hale**, 53 cks., Cook Swan & Young Corp., St. Johns

PLASTER—500 bgs., Whittaker Clark & Daniels, Hamburg

POTASSIUM SALTS—Caustic, 43 cs., Merck & Co., Gothenburg; 498 drs., order, Hamburg; 25 drs., the Goldschmidt Corp., Hamburg; **Chlorate**, 1000 cks., Monmouth Chem Co., Hamburg; **Muriate**, 900 bgs., N. Y. Potash Export My., Hamburg; **Sulfate**, 2000 bgs., N. Y. Potash Export My., Hamburg; **Sulfocyanide**, 10 cs., 3 cks., Hans Hinrichs Chem. Corp., Rotterdam

PROTECTOL—20 cks., General Dyestuff Corp., Hamburg

PYRIDINE—14 drs., C. Hardy Inc., Hamburg

QUICKSILVER—100 flasks, H. W. Peabody & Co., Alicante; 4 flasks, W. R. Grace & Co., Coquimbo

QUINOIDINE—110 drs., R. W. Greeff & Co., Rotterdam

SHELLAC—5 cs., D. Andrews & Co., Southampton

SODIUM SALTS—Carbonate, 20 kegs, Johnson & Son, London; **Cyanide**, 500 cans, C. Hardy Inc., Havre

SODA—Nitrate, 6171 bgs., A. Gibbs & Co., Iquique; 12 cks., Davies Nitrate Co., Hamburg; 6400 bgs., Anglo So. American Trust Co., Iquique; 250 bgs., order, Tocopilla; 600 bgs., Anglo So. American Trust Co., Antofagasta; 3447 bgs., E. I. DuPont De Nemours Co., Antofagasta; 508 bgs., G. W. Sheldon & Co., Hamburg; **Phosphate**, 100 drs., A. Klipstein & Co., Rotterdam; **Sulfide**, 30 drs., Hans Hinrichs Chem Corp., Rotterdam; 128 drs., Roessler & Hasslacher Chem Corp., Rotterdam; 128 drs., Roessler & Hasslacher Chem Corp., Rotterdam; 30 drs., Hans Hinrichs Chem Corp., Rotterdam; **Sulfite**, 50 drs., R. F. Downing & Co., Bristol

SPAR—Heavy, 400 bgs., A. Klipstein & Co., Rotterdam

SPONGES—27 bls., J. H. Rhodes & Co., Nassau

SULFUR—16 cks., Mallinckrodt Chem Works, Bristol

SUMAC—350 bgs., N. Y. Trust Co., Palermo; 100 bls., order, Palermo

TALC—700 bgs., C. Mathieu, Genoa; 1400 bgs., C. Mathieu, Genoa; 200 bgs., C. B. Crystal, Genoa

TAPIOCA—Flour, 500 bgs., Bank N. Y. Trust Co., Sourabaya; 5 bgs., Catz American Co., Batavia; 500 bgs., Bank N. Y. Trust Co., Batavia; 630 bgs., T. Leyland Co., Macassar; 488 bgs., Stein Hall & Co., Macassar; **Pearl**, 158 bgs., Catz American Corp., Batavia

TARTAR—900 bgs., C. Pfizer & Co., Piraeus; 137 bgs., C. Pfizer & Co., Lisbon

ULTRAMARINE BLUE—15 brls., Stanley Doggett Co., Antwerp

VANILLINE—2 cks., McKesson & Robbins, Rotterdam

VULCACIT—2 cs., Grasselli Chem Co., Rotterdam; 2 cs., Grasselli Chem Co., Rotterdam

WAX—Animal, 18 bgs., Will & Baumer Co., Tampico

WOODFLOUR—300 bgs., A. Kramer & Co., Rotterdam

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WOOL GREASE—100 cks., Pfaltz & Bauer, Bremen
ZINC—Oxide, 40 cks., Smith Chem & Color Co., Rotterdam; 20 bbls., Phillip Bros., Antwerp

IMPORTS AT PHILADELPHIA

August 24 to 31

BARIUM SULFATE—72 casks, order, Rotterdam
CAUSTIC POTASH—50 drums, order, Hamburg
CHEMICALS—125 bags, order, Rotterdam; 15 pkgs., order, Rotterdam; 95 drums, Superfos Corp., Hamburg
CLAY—200 tons, United Clay Mines Corp., Bristol; 100 tons, J. W. Hampton Jr., & Co., Bristol; Blue, 105 tons, Moore & Mungger, Bristol; China, 102 tons, Moore & Mungger, Bristol
EPSOM SALTS—500 bags, order, Hamburg
GLYCERIN—60 casks, order, Malaga; 20 casks, order, Malaga; 60 casks, order, Malaga
OILS—Palm, 62 casks, African Eastern Trading Co.
ORES—Chrome, 3,964 tons, E. J. Lavino & Co., Manganeso, 2,641,600 kilos; W. R. Grace & Co. Colombo; 3,002 tons, 4 cwt. 2 qurs., E. J. Lavino & Co., S. C. Kondi, 1500 tons, Central Prov. Mang. Co.
POTASH SALTS—Kalinat, 272,278 kilos, Potash Export Co., Hamburg; Manure Salt, 138,000 kilos, Potash Export Co., Hamburg; Murate, 1000 bags, Potash Export Co., Hamburg; 7491 bags, Potash Export Co., Hamburg; Sulfate, 1250 bags, Potash Export Co., Hamburg
SHELLAC—102 bags, order, Rotterdam; 275 bags, order, Calcutta; 38 bags, New York Trust Co., Hamburg; 36 bags, New York Trust Co., Hamburg; 200 bags, order, Hamburg; 1030 bags, order, Calcutta
SODIUM PRUSSIAN—26 casks, Roessler & Hasslacher Chem Co., Rotterdam
SODIUM SULFIDE—159 drums, order, Rotterdam
TALC—900 bags, order, Bordeaux

IMPORTS AT WILMINGTON, N. C.

POTASH SALTS—Sulfate, 200 tons; Murate, 700 tons; Magnesia—Sul-Pot, Mag, 750 tons; 30% Manure Salts, 60 tons; 20% Manure Salts, 400 tons; Kainit 12.4%, 300 tons, August 24—Bremen
SODIUM NITRATE—4,900 tons, August 29, Chile

IMPORTS AT BALTIMORE

Aug 26 to Sept 1

BONE MEAL—560 bgs., to order, Westerner, Rotterdam
CHEMICALS—63 bbls., to order, Gottingen, Hamburg
CLAY—77 cks., O. R. Deer, Westerner, Rotterdam; 42 cks., A. Hurst & Co., Inc., Westerner, Rotterdam; Raw, 250 cks., to order, Gottingen, Bremen
CYANIDE—Sodium, 20 dms., F. J. Couse, Bellhaven, Liverpool
FERTILIZER—500 bgs., to order, Westerner, Rotterdam
LIME—Chlorinated, 115 cs., to order, Bellhaven, Liverpool

MANGANESE—Ore, 8,400 tons, to order, Crickasaw City, Rio de Janeiro; 1,500 tons, Carnegie Steel Co., Haleric, Calcutta
OIL—Castor, 1 dm, Island Export Co., Gottingen, Hamburg; Olive, 580 cks., Pomreian Corp., Saugus, Marseilles; 50 cs., (in tins) F. Romeo & Co., Saugus, Marseilles
ORE—Iron, 6,760,500 kilos Bethlehem Steel Co., Murjek, Lulea; 1,500 tons, Bethlehem Steel Co., Monsun, Narvik; 6,807 tons, Bethlehem Steel Co., Yorkmoore, Bono
PEATMOSS—50 bls., Atkins & Dierbrow, Gottingen, Bremen
PEATMULL—520 bls., Atkins & Dierbrow, Gottingen, Bremen
POTASH—500 bgs., to order, Gottingen, Bremen; Carbonate, 99 cks, Parsons & Pietro, Gottingen, Hamburg; Nitrate, 102 cks., Notroff Pickhardt & Co., Inc., Westerner, Rotterdam
SALT—Bleached, 250 bgs, F. J. Couse, Bellhaven, Liverpool; Epsom, 500 bgs., Merchants National Bank, Gottingen, Bremen

IMPORTS AT SAN FRANCISCO

August 20 to 27

COPRA MEAL—1400 bags, Pacific Trading Co., Yokohama
COPPER SULFATE—26 bbls., order, Antwerp
FULLER'S EARTH—550 bags, Balfour, Guthrie & Co., London
GLYCERINE—120 casks, Hercules Powder Co., Rotterdam
IRON—Oxide, 50 bbls., order, Rotterdam
KAPOC—85 bales, Burns, Philp Co., Samarang; 50 bales, Balfour, Guthrie & Co., Samarang; 6 bales, Lilienthal, Lee & Co., Batavia
OIL—Codliver, 35 casks, Robert Stewart, Bergen; 10 bbls., Raymond Co., Bergen; Olive, 50 drums, order, Rotterdam; Perilla, 150

drums, order, Yokohama; Wood, 150 drums, order, Hongkong.
TAPIOCA—Flakes, 112 bags, order, Batavia; Pearl, 32 bags, order, Batavia
TUMERIC—30 kegs, Muller Bros., London

IMPORTS AT NEW ORLEANS

Aug. 26 to Sept 2

BAUXITE—2313 tons, Republic Mining Co., Georgetown
COPRA—642 bags, Proctor & Gamble, Belize
EPSOM SALTS—150 sacks, order, Hamburg
KAINIT—4000 bags, order, Bremenn
MOLASSES—1,752,495 gals. Dunbar Molasses Co. Havana; 650 bbls., Penick & Ford Trinidad
OIL—Olive, 101 bbls., order, Barcelona
POTASH—Caustic—80 drums order, Bremen
SODA—Nitrate, 40,629 bags W. R. Grace Iquique
SALTPETER—80 casks, order, Hamburg

IMPORTS AT BOSTON

Aug 8 to 13

ANILINE COLORS—50 drums, order, Antwerp
CHEMICALS—1500 bags, R & H Chemical Co., Rotterdam; 313 bags, Rhodia Chemical Co., Rotterdam; 68 casks, A. Klipstein Co., Rotterdam
CHLORATE OF POTASH—550 cases, order, Antwerp
CARBONATE OF POTASH—82 casks, Irving M. Sobin Co., Rotterdam
GLAUBER SALTS—125 casks, order, Rotterdam
MAGNESITE—130 bbls., Brown Bros., Rotterdam
MURIATE OF AMMONIA—140 casks, Kutroff Pickhardt & Co., Rotterdam
PHOSPHATE OF SODA—168 bbls., A. Klipstein & Co., Antwerp
SODIUM SULFIDE—125 bbls., Irving M. Sobin Co., Rotterdam

Exports Chemicals, Oils and Fats

EXPORTS AT NEW YORK

ACID—Acetic Glacial, 10 Demijohns, August 19, Cartagena; Phosphate, 24 pgs., August 5, Rio De Janeiro; Stearic, 20 bgs., August 12, La Guara
CALCIUM—Carbide, 100 drs., August 17, Pto Cabello; 40 drs., July 29, Punta Arenas
CLAY—200 bgs., August 13, Genoa; 140 bgs., August 24, Hamburg
COAL TAR RESIDUE—67 drs., August 6, Liverpool
COLORS—5 bbls. August 17, Santiago; Bronze Powder, 10 cs., August 5, Rio De Janeiro
EPSOM SALTS—6 kgs., July 29, Panama
EXTRACT—Logwood, 12 cks., August 5, Manchester; Tanners, 15 bls., August 17, Melbourne; 15 bls., August 17, Havre; 52 bls., August 24, London
FERTILIZER—18,000 bgs., August 5, Piraeus; 240 bgs., August 19, Pto Colombia
GLAUBER SALT—10 kgs., July 29, Panama; 5 kgs., August 19, Guayaquil
GUM—Kauri, 10 cs., August 17, Havre

LINSEED OILCAKE—4200 bgs., August 18, Rotterdam; 1297 bgs., August 5, Liverpool; 6523 bgs., August 10, Antwerp; 619 bgs., August 18, Rotterdam; 327 bgs., August 18, Rotterdam; 651 bgs., August 5, London; 2418 bgs., August 13, London; 2023 bgs., August 6, Liverpool
NICKEL OXIDE—172 bls., August 18, Rotterdam
ORTHOTOLUENESULFONAMID—34 bbls., August 6, Liverpool
SODIUM SALTS—Ash, 60 bls., August 18, Rotterdam; 40 bls., August 13, London; 105 bls., August 19, Glasgow; 50 bbls., August 17, Salaverry; 15 bbls., August 4, Cartagena; Bicarbonate, 30 kgs., August 19, Pto Colombia; 20 kgs., August 19, Buenaventura; Caustic, 200 cs., August 23, Santos; 350 cs., August 20, Ceara; 50 cs., August 20, Nata
ZINC—Oxide, 120 bls., August 5, Manchester; 280 bls., August 13, London; 160 bls., August 6, Liverpool

Flexible tariff revisions will be urged by the Tariff Commission in its annual report to Congress for 1927. It is claimed that section 315 is unworkable. It has been found very difficult to get actual costs of production in dollars and cents in foreign countries with which to measure the difference with American costs. Invoice prices of imports are regarded as reasonable evidence of marginal costs and in some instances have already been used where production costs were unobtainable.

William Cooper & Nephews, coal-tar crudes, have moved from 152 W. Huron st. to 1801 Clifton Avenue, Chicago.

Production of coke iron in the United States in August, according to an estimate compiled by "Iron Trade Review" from reports telegraphed by blast furnaces, again showed a loss. Not only were the losses in total production and average daily rate the smallest of any of the last four months, but fewer stacks went out of blast. Already several furnace operators have announced intentions to blow in furnaces early in September.

Finally revised statistics on production of lead in Canada in 1926 show that recovery was 283,901,265 lbs. valued at \$19,240,661 against 253,580,578 lbs. valued at \$23,127,460 the previous year.

Cotton ginned from the 1927 crop prior to Aug. 16 amounted to 457,031 running bales. Bulk of the ginnings was in Texas, where 400,737 bales were handled. In Georgia 39,448 bales were ginned; Alabama 11,317 bales; Louisiana, 2,347 bales; Mississippi, 1,605 bales; Florida, 1,154 bales, and elsewhere 424 bales. During the same period in Texas last year 176,322 bales were ginned, while in 1925 to August 16, 364,483 were ginned.

Allowance of drawback on manganese dioxide powdered form, manufactured by William H. Muller & Co., Inc., New York at its Elizabeth, N. J. plant with the use of imported manganese ore, has been made by the Treasury Department.

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Application date appears with each patent.

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Issued Aug. 23, 1927

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1,639,724-5.—Diarylguanidines from aniline and cyanogen chloride. C. J. Cronshaw and W. J. S. Naunton, Manchester, assignors, British Dyestuffs Corp. June 28, 1926.
1,639,861.—Rubber Composition for Lining Tubes. J. Schwab Jr., Winnipeg, Manitoba, Canada. June 24, 1925.
1,639,903.—Accelerating Vulcanization of Rubber. W. Scott, Akron, O., assignor, The Rubber Service Laboratories Co., Akron. Aug. 14, 1924.
1,639,905.—Sodium Thiosulphate. F. W. Speer Jr. and D. L. Jacobson, Pittsburgh, assignors, The Koppers Co. Apr. 4, 1921.
1,639,933.—Filtering Apparatus. L. Ewald, Minneapolis. June 19, 1925.
1,639,947.—Tin Tetramethyl. C. A. Kraus and C. C. Callis, Worcester, Mass., assignors, Standard Development Co. Apr. 13, 1923.
1,639,957.—Aldehyde Reaction Products of the aldehyde derivative of Schiff's base. C. O. North, Talmadge, O., assignor, The North, base. Talmadge, O., assignor, The Rubber Service Laboratories, Co., Akron. Mar. 25, 1925.
1,639,980.—Solid Oxides of Carbon by electrochemical methods, and use. B. K. Brown, et al., Terre Haute, Ind., assignors, C. F. Burgess Laboratories Inc., Dover, Del. July 7, 1925.
1,639,988.—Purifying Petroleum Products. S. J. Dickey and R. C. Wheeler, Los Angeles, assignors, General Petroleum Corp., Apr. 19, 1924.
1,640,018.—Vat Dyes and Alkyl Esters of Monochloroacetic Acid. B. Wylam, Lancaster, J. E. Harris, Carlisle, England, and J. Thomas, Grangemouth, Scotland, assignors, Scottish Dyes Ltd., Grangemouth. Aug. 19, 1926.
1,640,069.—Rectifying Column. J. F. Cyphers, Baltimore. Oct. 6, 1923.
1,640,092.—Composition for Preventing Formation of Raindrops on Windows. J. F. Murray and J. Smith, Mayfield, Pa. Aug. 17, 1926.
1,640,136.—Adhesive Paste. R. B. Smith, Endicott, N. Y. Apr. 26, 1926.
1,640,148.—Gelatin Coating Protection on Photographic Plates and Films. C. Glaser, Paris. Oct. 7, 1926.
1,640,185.—Coating Various Objects, process. A. Eggiman and A. Perca, Paris. Dec. 1, 1924.
1,640,202.—Distilling Oil. F. T. Manley, Houston, Tex., assignor, The Texas Co., New York. Oct. 10, 1917.
1,640,223.—Treating Heavy Hydrocarbons. A. D. Smith, and J. Perl, Arkansas City, Kans. Jan. 28, 1922.
1,640,224.—Match Striking Compositions containing synthetic resin. H. W. Robinson, West Bromwich, England. Feb. 18, 1926.
1,640,249.—Filtering and Purifying Liquids. C. H. Perry, Miami, Fla. May 10, 1923.
1,640,313.—Specific Gravity (Gases) Indicator and Recorder. O. Dommer, Karlsruhe, Germany. Feb. 5, 1925.
1,640,314-5.—Alkali Metal Sulphides. H. Freeman, Vancouver, British Columbia, Canada, assignor, one half, Canada Carbide Co., Ltd., Montreal. Feb. 14, 1923.

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Issued July 27, 1927

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271,869.—Separating Mixtures of Alkali Salts by treatment with ammonia. E. Weitz, Halle, Germany. May 20, 1927.
271,873.—Zirconium Compounds for silicous zirconium ores. C. J. Kinzie, Niagara Falls, N. Y., assignor, Titanium Alloy Mfg. Co., New York. May 23, 1927.

271,881.—Producing Volatile Acids by decomposing salts with strong acid. H. Frischer, Cologne, Germany. May 25, 1927.
271,883.—Yeast Preparation from yeast fungi by action of oxygen-containing gas. E. I. Levin, Stockholm. May 25, 1927.
271,884.—Anthraquinonyl Ketones. I. G. Farbenindustrie A. G., Frankfurt. May 25, 1927.
271,897-8.—Dyeing with Substantive Dyes and Sulphonic Acids. Society of Chemical Industry in Basle, Basle, Switzerland. May 27, 1927.
271,903.—Crushing and Mixing Pitch, in cylinder apparatus. Preparation d'Industries des Combustibles So. Anon., Nogent-sur-Marne, Seine, France. May 28, 1927.
271,906.—Thioindigold Dyes. I. G. Farbenindustrie A. G. May 30, 1927.
271,927.—Measuring Feed of Granular Materials, apparatus. A. Bursill, and Electroflo Meters Co., London. Jan. 30, 1926.
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271,969.—Aliphatic Amides and Salts from alcohol and hydrocyanic acid, etc. Synthetic Ammonia & Nitrates Ltd., and H. G. and P. A. Smith, Stockton-on-Tees. Mar. 13, 1926.
271,980.—Cleansing Compositions. F. E. Perrett, Coudon, Surrey. Mar. 24, 1926.
272,024.—Pyrazolones. British Dyestuffs Corp., and M. Mendoza, Manchester. May 12, 1926.
272,053.—Lead Carbonate. S. C. Smith, London. June 29, 1926.
272,092.—Gas Analyzing Apparatus. S. S. Levinsohn, Leningrad, Russia. Oct. 28, 1926.
272,109.—Grinding Crystalline Material under pressure. I. G. Farbenindustrie A. G. Dec. 13, 1926.
272,111.—Edge Runners and Pans. O. A. Kreutzberg, Bethlehem, Pa. Dec. 21, 1926.
272,130.—Separating Solid from Liquid Particles by settling. R. J. Marz, London. Feb. 3, 1927.
272,142.—Porous Silicon Compound Pigment for paints. P. W. Turner, Ada, O. Dec. 1, 1925.
272,155.—Formaldehyde by reaction of carbon monoxide and water. Soc. Chimique de la Grande-Paroisse Azote et Produits Chimiques, Paris. Sept. 7, 1926.
272,163.—Finely Divided Portland Cement. L. Forsen, Geriknaes, Finland. Nov. 19, 1926.
272,169.—Filters Having Sheet Filtering Materials. A. M. Babitch, Flint, Mich., assignor, A. C. Spark Plug Co. Feb. 21, 1927.
272,173.—Phosphorus Pentoxide Dissolved in Phosphoric Acid as dessicant. I. G. Farbenindustrie A. G., Frankfurt. Mar. 25, 1927.
272,187.—India Rubber Compositions. W. B. Westcott, Boston, assignor, Rubber Latex Research Corp., May 14, 1927.
272,190.—Cracking Hydrocarbons. I. G. Farbenindustrie A. G. May 20, 1927.
272,194.—Cracking Oils in presence of catalysts. I. G. Farbenindustrie A. G. May 23, 1927.
272,197.—Leather Waterproofing Compositions of vegetable resin base. J. J. J. Guillemin, Conflans-St-Honorine, Seine-et-Oise, France. May 26, 1927.
272,198.—Fatty Acids by chlorination process. C. Stiepel, Berlin. May 27, 1927.
272,209.—Leaf Filters. W. H. Scheidt, Elberfeld, Germany. May 30, 1927.
272,211.—Chemical Apparatus, for liquid diffusion purposes. L. Cerami, Milan. May 31, 1927.
272,225.—Anthraquinonyl Alpha Ketones. I. G. Farbenindustrie A. G. June 2, 1927.

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Issued July 28, 1927.

444,420.—Stable Emulsions with Coal Dust. A. Riebsche Montanwerke A. G., Halle, Germany. June 20, 1925.
444,483.—Ethyl Cellulose as Protective Colloid. F. W. de Jahn, New York. Sept. 21, 1924.
444,325.—Naphthalenesulphocarboxylic Acid Anhydride. L. Cassella & Co., G.m.b.H., Frankfurt. Nov. 30, 1924.
444,326.—Separating Sulphonic Acids and Salts from Mineral Oils. P. I. Shestakoff, Paris. Feb. 18, 1925.
schmidt A. G., Essen, Ruhr. Oct. 3, 1922.
444,431.—Colloidal Lead White. T. Gold.
444,432-3.—Neutral Light Fast Lithopone Dr. E. Maass, and Dr. R. Kempf, Berlin. May 10, 1923 and Aug. 26, 1924.
440,003.—Improving Natural Resins. Chemische Fabrik Dr. K. Albert G.m.b.H., Amoenburg-Beilrich, Germany. Aug. 9, 1917.
444,387.—Leather Cement. I. G. Farbenindustrie A. G., Frankfurt. Aug. 4, 1925.
444,441.—Accelerating Vulcanization of Natural and Artificial Rubbers. I. G. Farbenindustrie A. G. Aug. 7, 1925.
444,363.—Silica Containing Precipitates. Siemens & Halske A. G., Berlin. Oct. 21, 1925.

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Issued July 7, 1927.

627,865.—Electrolyzing Alkaline Chlorides. E. Krebs. Jan. 21, 1927.
627,884.—Sulphite Pulp. E. L. Rinman. Jan. 21, 1927.
627,903.—Enchaining Base—Exchange Capacity of substances. A. Rosenheim. Jan. 22, 1927.
627,920.—Aldehyde. I. G. Farbenindustrie A. G. Jan. 24, 1927.
627,982.—Treating Silicic Acid Fluorides. Rutgerswerke A. G. Jan. 25, 1927.
628,009.—Purifying Acetic Acid. H. Dreyfus. Jan. 26, 1927.
628,033.—Urea Derivatives. J. D. Riedel A. G. Sept. 15, 1926.
628,062.—Hydrofluoric Acid. F. Schuch. Dec. 11, 1926.
628,107.—Separations and Purifications of Higher Organic Oxides. I. G. Farbenindustrie, A. G., Jan. 26, 1927.
628,108.—Cellulose Esters and Ethers. Spicers Ltd., Jan. 26, 1927.
628,179.—Phosphorus. I. G. Farbenindustrie A. G., Jan. 28, 1927.
628,196.—Phthaloyl 2:3 Thionophthene. I. G. Farbenindustrie A. G., Jan. 28, 1927.
628,211.—Concentrated Acetate Solutions from acetic acid vapors. Vereins fuer Chemische Industrie A. G., Jan. 29, 1927.
627,845.—Camphor from Bornol. H. Gammag. Jan. 21, 1927.
627,849.—New Azo Colors. I. G. Farbenindustrie A. G., Jan. 21, 1927.
627,939.—Isatives and Derivatives. I. G. Farbenindustrie A. G., Jan. 24, 1927.
627,999.—Pyroxylic Filus. E. I. duPont de Nemours & Co. Jan. 25, 1927.
628,003.—Anthraquinone Colors. British Dyestuffs Corp., A. Shephersden and W. W. Tatum. Jan. 26, 1927.
628,120.—Benzanthrone Carboxylic Acids and vat colors. I. G. Farbenindustrie A. G., Jan. 26, 1927.
32,364 Additions to 623,455.—Activated Carbon of high density. Soc. Anon. des Engrais et Noir Animal. Sept. 9, 1926.
627,821.—Treating Oleaginous Fruits. F. Krupp Grusonwerke A. G. Jan. 20, 1927.
628,002.—Fatty Acid Emulsions. G. Petroff. Jan. 26, 1927.
628,007.—Decomposing Emulsions. G. Petroff. Jan. 26, 1927.
628,008.—Purifying Mineral Oils. G. Petroff. Jan. 26, 1927.
628,154.—Extracting Vegetable Oils. I. G. Farbenindustrie A. S. Jan. 27, 1926.
628,049.—Vulcanization Accelerator. The Goodyear Tire & Rubber Co. Nov. 8, 1926.
628,093.—Rubber Emulsions. J. W. A. Touchon. Jan. 25, 1927.

Canada Carbide Co., Ltd., subsidiary of Shawinigan Water and Power Co., will shortly have the largest carbide furnace on the American continent. The capacity will be approximately 50 per cent greater than the present furnace. The new equipment will cost \$250,000.

IN THE PRESS.

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NEW MEXICO POTASH

Results of the first Government test made under the Federal potash act are encouraging, though the beds encountered are probably not rich enough to have present commercial value, according to a statement by the Department of the Interior. The first core test was made on public land in the NW $\frac{1}{4}$ sec. 13, T. 17 S., R. 31 E., Eddy County, New Mexico. The site was not the first choice of the Geological Survey or even the fifth choice. The restrictive language of the act under which the well was drilled required that all lessees or owners of lands or of mineral rights within a radius of 1 mile of any proposed site must sign contracts of agreement to reimburse the Government for the costs of exploration before any work could be started. No landowner or lessee cared to sign such a contract, so that the co-operating departments were automatically excluded from areas where the better showings had been indicated by drill cuttings. Under the conditions named it is surprising that the results obtained are so favorable as they are.

Dye census for the calendar year 1926 will probably be available sometime in September according to the Tariff Commission. The editorial work was completed some time ago by the Chemical Division of the Commission, but it takes considerable time to get a book of this kind into actual print owing to the rush of work at the Government Printing Office. Galley proofs on the report have been received.

Ohio Leather Co., Girard, Ohio, was the respondent in a hearing held before an examiner of the Federal Trade Commission Monday, Aug. 15, at Cleveland. The hearing was in connection with the firm's use of a certain trade name to designate its products. William W. Sheppard was the trial examiner and Edward J. Hornibrook, the attorney for the commission.

"The Cleanliness Journal", published occasionally by Cleanliness Institute, which has been organized by the Association of American Soap & Glycerin Producers, has issued its first number. The publication naturally devotes much space to telling of the Institute and the purpose of the publication which is to teach and spread the doctrine of cleanliness.

Longview Fibre Co., Longview, Wash., is rushing work on its new plant on Columbia River. The machinery is in place and operation will begin Oct. 1.

Production of pig iron in August was 2,929,020 tons or 25,605 tons below July. The daily average output for August was 94,484 tons, or 827 tons less than the July average, August and July each having 31 days, a decline in the total output and the daily average relatively is the same, or 0.8%. The drop in the number of active stacks, from 190 in July to 188 in August, was the smallest of any since the recession in production began in May. The August daily average of 91,484 tons is the lowest for any month since August, 1925. The total for August, 2,929,020 tons, was 271,703 tons, or 8.5% less than that for August, 1926.

Metropolitan Dye Works, with its plant at 180th Street and Bronx River and six branch stores in Manhattan, have been acquired by the Federated Laundries, Inc. This rounds out the service of the Federated Companies for Westchester, upper New York and the Bronx. Metropolitan Dye Works, Inc., has been entirely in one family for three-quarters of a century. Edmund A. Funke, grandson of the founder, will continue to act as Vice President.

American Urbain Corp., New York City, has contracted with I. G. Farbenindustrie A. G., the Metallbank & Metallurgische Gesellschaft, Frankfurt-on-the-Main, and Aussiger Verein (Czechoslovakia), to exploit German patents on activated carbon in the United States, says a Berlin report. At the same time, the French Societe de Charbons actifs Urbaine, acquires rights on German patents for exploitation in Europe, outside of Germany.

E. H. Kerwin, examiner of the Interstate Commerce Commission reporting in the case of the Peerless Explosives Company, against Central Railroad of New Jersey, finds that the rates on nitrate of soda, in carloads, from New York Harbor to White Haven, Pa. was not unreasonable or otherwise unlawful and the complaint was dismissed.

Dr. Arthur Mothwurf, president of the \$17,500,000 American Bemberg Corp. and the \$37,000,000 American Glanzstoff Corp., will be president of the newly formed Elizabethton Trust Co., of Elizabethton, Tenn. The new trust company is capitalized at \$250,000.

Summers Fertilizer Co., Canton, Md., will erect a one story frame building on Clinton st., near 4th st.

FERTILIZER OUTLOOK

BETTER SINCE MAY

Since May, says National Fertilizer Associations bulletin of Sept. 1, a sharp advance is noted in the average price of mixed fertilizer. The bulletin says:

"Since the middle of August the general price average has advanced materially, due partly to a sharp advance in cotton and cotton textiles but also to a slight advance in most commodities, including fertilizer and fertilizer materials. The farm situation is much brighter for the coming year than for the past season. Prices of cotton and corn especially are likely to be much better than during the past season. The prices of cattle and hogs are also quite satisfactory. The season promises to even up conditions somewhat between the highly-paid industrial worker and his poorly-compensated farm cousin. The higher prices for farm products without compensatory increases in industrial wages and prices of manufactured products seem likely.

"While imports of fertilizers showed a decrease of 21.9% from the previous season, exports for twelve months showed an increase of 6.1%. This increase occurred largely in sulfate of ammonia, which showed an increase of 44,000 tons over the previous season, in an increase of 34,000 tons in exports of superphosphates, and of 24,000 tons in phosphate materials. Other fertilizers showed an increase of 18,000 tons. For July exports were 55.7% larger than for July, 1926. For the month phosphate rock showed an increase of 48,000 tons over July, 1926, but sulfate of ammonia showed a decrease of 4,000 tons. This probably indicates a better demand in this country for sulfate of ammonia than prevailed during July, 1926."

Mallinckrodt Chemical Works, (Philadelphia office) has received an award for 300 pounds of strontium oxalate at 75 cents per pound for Frankford Arsenal. J. H. R. Products Co., Willoughby, will supply 1,500 pounds of barium peroxide at 15 cents per pound. Raymond Products Co., New York City, 1,700 pounds strontium nitrate at 12.4 cents per pound. Charles F. Gledhill Co., Inc., Brooklyn, N. Y., 600 pounds calcium resinate, at 8.5 cents per pound.

Frankford Arsenal has awarded 1,000 pounds strontium peroxide to Barium Reduction Corp., Charleston at \$1.50 per pound for 80 per cent, \$2 per pound for 85 per cent and \$2.25 per pound for 90 per cent.

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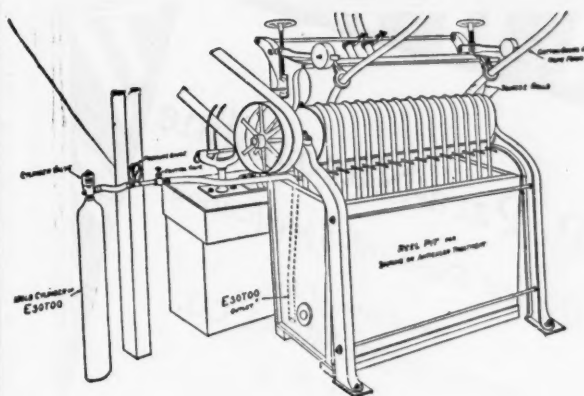
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Simplified Practice in Insecticides

Officials of the Simplified Practice Division, Department of Commerce, have received answers from fifteen concerns manufacturing insecticides and fungicides in connection with the possible revision of the present simplification program. A recapitulation of the answers follows:

What percentage of your total sales in the following commodities are in accord with the sizes listed in Simplified Practice Recommendation No. 41?

Average Adherence: Lead Arsenate, 93.42%; Calcium Arsenate, 99.49%; Paris Green, 95.46%; Bordeaux Mixture, 99.56%.

Are you cataloging or listing only the sizes listed in the recommendation?

2 said No; 12 said Yes.

Do you recommend any further reduction in the number of packages scheduled?

11 said No; 4 said Yes.

Further eliminations recommended:

Lead Arsenate, 5 lb. (2 firms), 25 lb. (2 firms); Calcium Arsenate, 5 lb. (2 firms), 25 lb. (1 firm); Paris Green, 5 lb. (1 firm); Bordeaux Mixture, 5 lb. (1 firm), 25 lb. (2 firms).

Do you recommend the addition of any sizes of packages? If so, list the sizes of packages which you recommend to be added.

10 said No, 5 said Yes.

Further additions recommended:

Lead Arsenate, ½ lb. (3 firms), 6 lb. (1 firm); Calcium Arsenate, none; Paris Green, 2 lb. (1 firm); Bordeaux Mixture, none.

Several manufacturers, as well as the National Wholesale Drug Association, are advocating the restoration of the half-pound package for lead and calcium arsenate. Are you in favor of restoring this type of package?

11 said No; 3 said Yes.

Has Simplified Practice Recommendation No. 41 been of any benefit to you?

Of the 15 concerns reporting only two state they have not been benefited through Simplified Practice Recommendation No. 41. The benefits to the remaining 13 have been in the reduced hazard of carry-over stocks; elimination of requests from trade for numerous odd-size packages; lower investment in inventory as well as saving in labor costs; reduced package inventories and ability to make a more accurate advanced estimate of package requirements; reduction of stock sizes which do not move and which have to be packed at increased cost; prevention of further multiplication of unnecessary packages.

What percentage of your total sales in the following commodities are in accord with the sizes listed in Simplified Practice Recommendation No. 41?

	Lead Arsenate	Calcium Arsenate	Paris Green	Bordeaux Mixture
	%	%	%	%
1	52	....	....	....
2	....	....	76.2	....
3	100	100	100	100
4	86	100	....	100
5	100	100	....	100
6	....	100	....	....
7	100	100	98	100
8	95	100	....	100
9	100	100	....	100
10	90	100	....	100
11	100	100	100	100
12	98.57	98.41	99.47	99.76
13	100	100	100	100
14	95	95	95	95
15	98	100	95	100

List in the spaces provided below, additional sizes,

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ELEVENTH CHEMICAL EXHIBIT

(Continued from Page 330)

Problems of Distillation, Evaporation, and Drying—speaker to be announced.

Practice: The Operation of Evaporators:—F. C. Hettinger, U. S. Industrial Alcohol Co.

Drying: J. H. Nair, Merrill Soule Co., Syracuse, N. Y.

Weighing and Measuring: speaker to be announced.

2:00 p. m. and Thereafter: Individual and General Study—see program for Tuesday.

FRIDAY—September 30th, 9:00 a. m. General Lecture: "What the Chemist and Engineer Write," by H. E. Howe, Editor "Industrial & Engineering Chemistry."

9:45 a. m. "Safety in the Laboratory and the Plant," by G. Edwin White, College of the City of New York.

10:00 a. m. Separation of the Student Body into two groups:

GROUP I Materials of Construction: What to use, when, where, and why?

Ceramic Materials to Use in Chemical Plant Construction—Ross C. Purdy, Secretary, American Ceramic Society, Columbus, Ohio.

Metals, Alloys, plastics, Wood, Fibres, and Fabrics as Materials of Construction—W. S. Calcott, E. I. duPont de Nemours & Company, Wilmington, Delaware.

Review and Discussions: 2:00 to 5:00 p. m. Group Conference and Inspections—see program for Tuesday.

GROUP II Materials of Construction: Ferrous Metals and Alloys—Speaker to be announced.

Non-Ferrous Metals and Alloys—P. V. Faragher, Aluminum Co. of America.

Silica and Silicate Materials: Glass—A. E. Marshall, Corning Glass Works, New York.

2:00 p. m. and thereafter: Individual and general study—see program for Tuesday.

SATURDAY—October 1st, 9:00 a. m. General Lecture: "What the Exposition Shows us that the Chemist and Chemical Engineer have Accomplished," by H. E. Howe, Editor "Industrial & Engineering Chemistry." After this lecture the student body will separate into two groups for purposes as follows:

GROUP I General Review: Statement by Chairman of the type of report desired and issuing of printed questions. Students to make use of all available sources of information and to illustrate replies with drawing when necessary.

GROUP II Oral statements from reports prepared by the individual students on topics which they selected at the beginning of the course and discussion thereon by the group.

SIMPLIFIED PRACTICES

(Continued from Page 368)

if any, and the percentage of total sales of each of the said sizes.

	Lead Arsenate		Calcium Arsenate		Paris Green		Bordeux Mixture		
	%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.	
1	48	6	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	2.3	1/2	.....	.....
					14.	2			
					5.5	28			
					1.6	56			
3	.....	.....	.....	.....	.....	.....	.....	.....
4	14	6	.....	.....	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....
					.50	1/2	.....	.....
					1.50	2	.....	.....
8	5	6	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....	.....	.....
11	
12	1.43	50	& 100	1.59	50	0.53	2 & 56	0.24	50
13	
14	
15	2	1/2	5 1/2	2 & 28	

(Continued on Page 374)

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(Continued from Page 328)

that the petroleum resources of the world are not inexhaustible and that the time will come when we must have another source of motor fuel to supplement or replace gasoline.

This problem, so far, has not been of such vital interest to chemists in this country as it has abroad and particularly Germany, where several processes for a synthetic motor fuel have already been devised. The most important of these at present are the processes of Bergius and Fischer, both using coal as the raw material.

The Bergius process consists of a hydrogenation of coal under pressures of the order of 3000 lbs. sq. in. He obtains a liquid oil resembling petroleum from which a satisfactory motor fuel may be produced in a yield of about 40 gals. short ton of coal. His process has already passed the semi works stage and is operating in Germany in large scale installations.

The Fischer process is an outgrowth of the process for the manufacture of synthetic methanol from water gas. Fischer has found that by operating at atmospheric pressure and at lower temperatures in the presence of a catalyst such as a finely divided iron-cobalt mixture a reaction takes place between the carbon monoxide and the hydrogen with the formation of a liquid oil consisting principally of hydrocarbons, which he has called "Synthol". The process has not yet been reduced to a commercial scale.

While we in America do not need to worry at present about gasoline substitutes, we should look with a great deal of interest to these developments in Germany, since they constitute the ground work of the major problem of the motor fuel chemist for the future.

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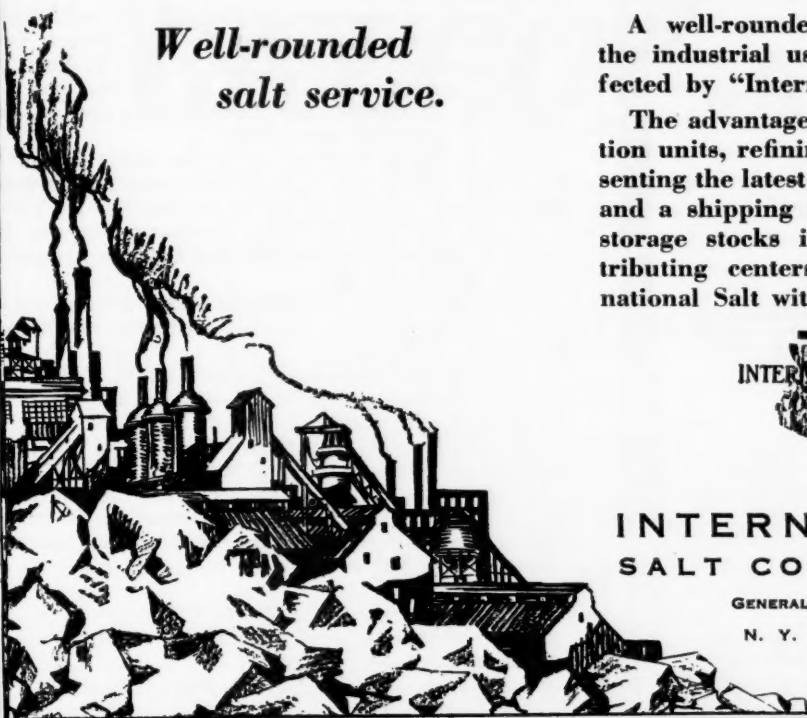
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Bicarbonate of Soda

Sal Soda

Monohydrate of Soda

Standard Quality



Soda Ash

Caustic Soda

Bicarbonate of Soda

Michigan Alkali Co.
General Sales Department
21 East 40th Street, New York
Chicago Office: 332 South Michigan Ave.

(Continued from Page 370)

Are you cataloging or listing only the sizes listed in the recommendation?

1, Do not use catalogues or lists. 2, Yes, with additional lists shown under inquiry No. 2; 3, Yes; 4, Yes; 5, No indication; 6, Yes; 7, Yes; 8, Yes; 9, Yes; 10, Yes; 11, Yes; 12, Yes; 13, Yes; 14, No; 15, Yes.

Do you recommend any further reduction in the number of packages scheduled?

1, No 2, No; 3, No; 4, Yes, 5 lbs. bags; 5, No; 6, No; 7, Yes—25 lb. size lead arsenate, calcium arsenate, and bordeaux mixture; 8, No; 9, No; 10, No; 11, Yes—25 lb. size for Lead Arsenate, Bordeaux Mixture; 12, Yes—5 lb. size—Lead Arsenate and Calcium Arsenate; 13, No; 14, No; 15, No.

Do you recommend the addition of any sizes of packages? If so, list the sizes of packages which you recommend to be added.

1, Yes—6 lb. bags—Lead Arsenate; 2, Yes—2 lb. Packages—Paris Green; 3, Yes—½ lb. carton—Lead Arsenate; 4, No; 5, No; 6, No; 7, No; 8, No; 9, No; 10, No; 11, No; 12, No; 13, No 14, Yes—½ lb. Lead Arsenate 15, Yes—½ lb. Lead Arsenate.

Several manufacturers, as well as the National Wholesale Drug Association, are advocating the restoration of the half-pound package for lead and calcium arsenate. Are you in favor of restoring this type of package?

1, No; 2, No indication; 3, Yes (This size is in demand for jobbers and seed houses, also small buyers of insecticides). 4 No; 5, No; 6, No; 7, No; 8, No; 9, No; 10, No; 11, No; 12, No; 13, No; 14, Yes; 15, Yes (lead arsonate only).

Has Simplified Practice Recommendation No. 41 been of any benefit to you?

1, None; 2, We have not experienced any particular

An unusually pure

Sulphate of Soda

Sulphate of Soda, when Kalbfleisch manufactured, is distinctive by reason of its freedom from acid, and the slightest trace of iron or ammonia.

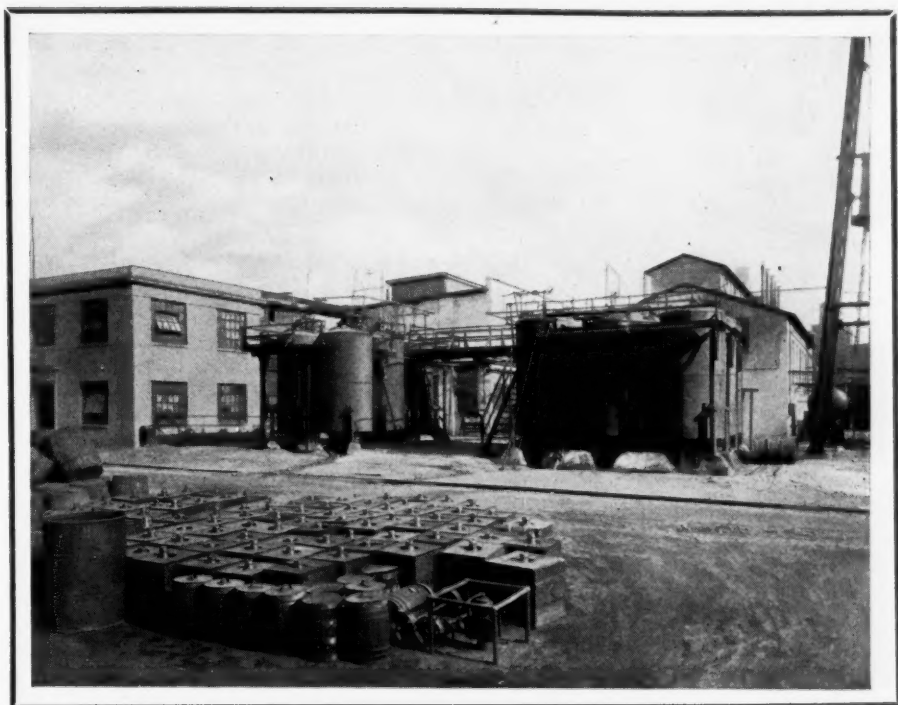
This exceptional purity qualifies Kalbfleisch Sulphate of Soda for the most exacting processes.


It is especially recommended as a standardizing agent for dyestuffs. It is supplied finely ground, packed in paper-lined barrels.

You will find Kalbfleisch service as dependable as these chemicals.

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KALBFLEISCH Corporation
200 Fifth Avenue
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why **CALCO** aniline oil?



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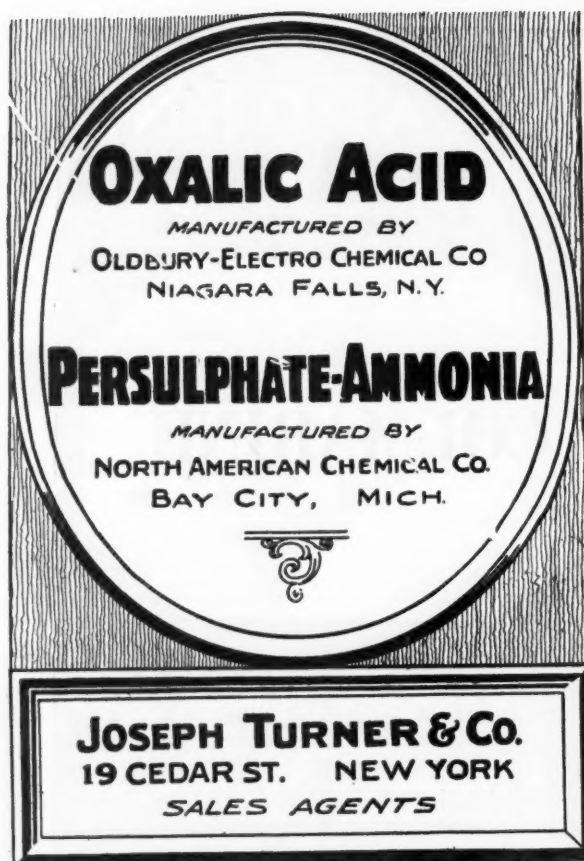
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New York

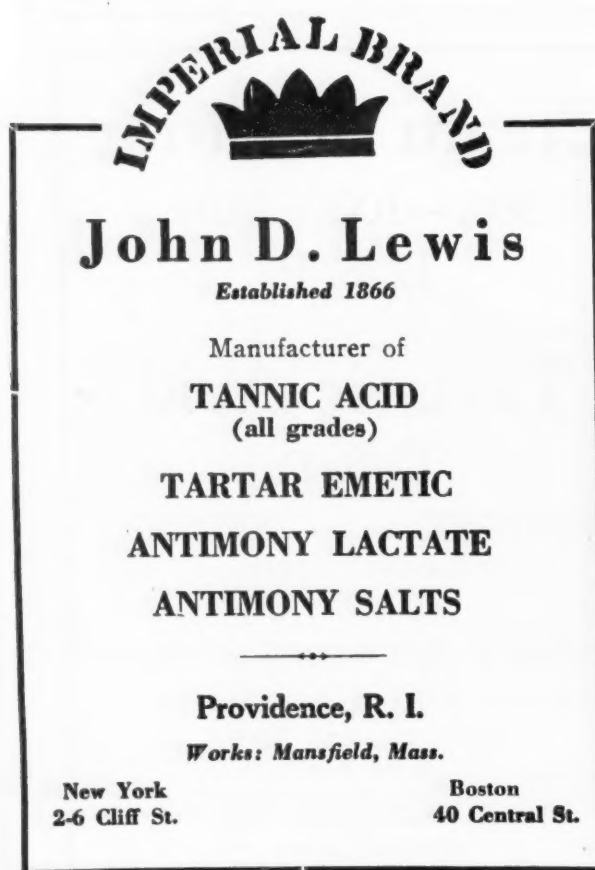
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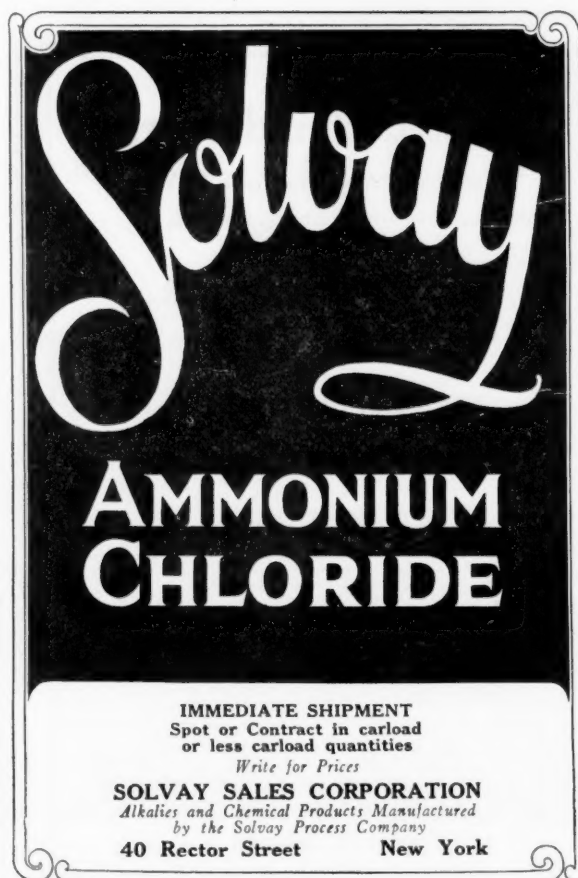
Boston
40 Central St.

benefit; 3, Yes, in that it has reduced the hazard of carry-over stocks; 4, Yes. We had adopted our present container sizes approximately one year prior to the issuance of S. P. R. No. 41 and its issuance has assisted in eliminating requests from the trade for the numerous odd-size packages which were formerly manufactured by other companies; 5, Yes. Has resulted in lower investment in inventory as well as some saving in labor costs; 6, Total production packed in standard 100-lb. steel drums; 7, Yes. It has benefited us considerably; 8, We believe it has reduced package inventories and enabled us to make a more accurate advanced estimate of package requirements; 9, Yes—some; 10, It has, and reduces the carrying of stock sizes which do not move—and which have to be packed at increased cost; 11, Yes. It has prevented further multiplication of necessary packages; 12, Highly beneficial; 13, Yes; 14, Yes; 15, Yes.

Other comments, if any.

1, None; 2, None; 3, We consider arsenic of lead in 1-lb. boxes to be a very unpracticable package, not only because it presents an untidy appearance on dealers' shelves, but is expensive to ship in broken case lots; 4, None; 5, None; 6, None; 7, None; 8, None; 9, None; 10, None; 11, None; 12, Above covers period from October 1, 1926, to May 1, 1927; 13, None; 14, None; 15, None.

The concerns contributing this data are: Bowker Chemical Co., Chipman Chemical Engineering Co.; Commercial Chemical Co. of Tennessee; Corona Chemical Division (Pittsburgh Plate Glass Co.); General Chemical Co.; Grassolli Chemical Co.; Interstate Chemical Co.; Laimer-Goodwin Chemical Co., Lavanburgh Co., Fred L.; Lucas Kil-Tone Co.; Nitrate Agencies Co., Riches, Piver & Co.; Sherwin Williams Co., Standard Chemical Works, Toledo Rex Spray Co.



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PHTHALATE
DIBUTYL TARTRATE
BUTYL STEARATE

**KESSLER CHEMICAL
COMPANY
ORANGE, N. J.**

Commercial Aspects of Tung Oil

(Continued from Page 331)

runs 5 to 8 per cent free acid and is frequently adulterated. Where in China they do everything by hand, Mr. Julian Arnold, the Commercial Attache from the United States in China, reports that one of our presses will do the work of 90 to 100 Chinamen, so that even the Chinaman at 15c per day will not prevent us from competing.

We do not attempt at this time to say what the profit of the industry per acre will be, but if one tree or a number of individual trees have produced four gallons of oil in a single year it is reasonable to expect that by proper tree selection that we could produce an average of 2 gallons of oil. If this is possible, and there is every reason to believe it is, figuring 116 trees to the acre would be 132 gallons or 1056 pounds.

Another factor comparing our pressing with the Chinese, the Chinese press by hand entirely and cannot effect the tremendous pressure we get on modern machines. From the best information we find that the Chinaman leaves 18 to 25 per cent of the oil in the residue. We leave 5 to 6 per cent. The difference will pay the pressing cost. The same machinery methods are being adopted in the cultivation of these trees, and three medium sized tractors will cultivate 100 acres a day.

There is expended in foreign countries \$50,000,000 to \$75,000,000 each year for paint oils, linseed and tung oil. The best production of linseed oil on their richest lands in favorable years is 225 pounds of oil against the possible production of tung oil of 1000 to 2000 pounds per acre. Tung oil blends with linseed oil and improves in many cases the finished product. Linseed are planted every year and there are many hazards from the planting of the seed until the crop is harvested and the seed brought to the mill for crushing. There are diseases that affect linseed. There are not insects or diseases that we have found in 20 years planting in this country and thousands of years planted in China that affect tung oil.

We have in this country trees 20 years old and it seems highly possible that the bearing age of these trees with good care will extend over a period of 25 to 30 years. From this it is fair to conclude that tung oil can be produced in this locality at a cost less than the production of linseed oil, and we should be able to stop a considerable proportion of the money now going out of this country for paint oils by growing tung oil.

Linseed production has moved from New York State to the far west and the man with the mill who crushed this seed had to move his mill or dismantle. Tung oil when once in production will probably be produced in the same locality continuously. That many thousand acres will be grown is evident for the reason that the production of the crop appears to be very profitable to the grower.

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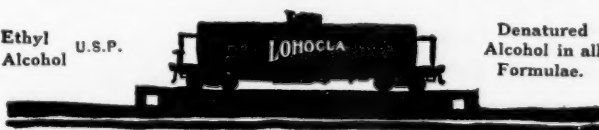
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venient form of the available and rather widely scattered information on rayon. It completely covers this industry, beginning at its early discovery, following through its production and allied tangents and terminating with the finished product. Aside from other valuable data for the textile technologist, it contains information regarding the preparation, application, action, in fact, almost everything concerned with the dyeing angle.

AN ADVANCED LABORATORY MANUAL OF ORGANIC CHEMISTRY. By Michael Heidelberger, B.S.A.M., Ph.D., Associate in Chemistry, Rockefeller Institute. Cloth bound, 103 pages. Published by Chemical Catalog Co., New York.

This is an advanced laboratory manual, designed to simplify the task of the advanced chemistry student. The author has selected experiments of greater difficulty than those ordinarily included in elementary courses but has avoided problems, so difficult or involved as to discourage rather than interest the student.

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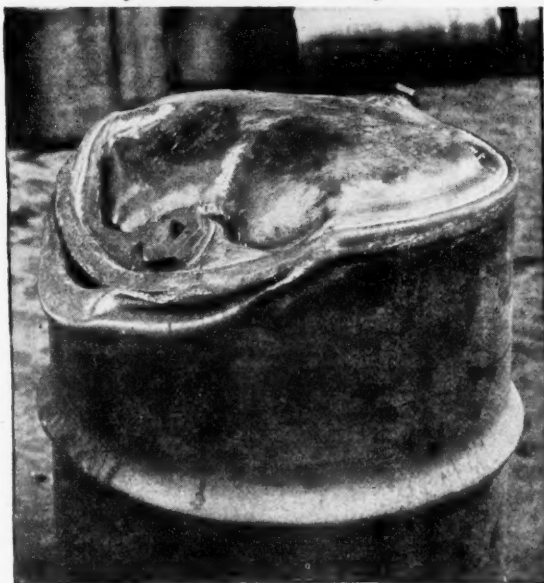
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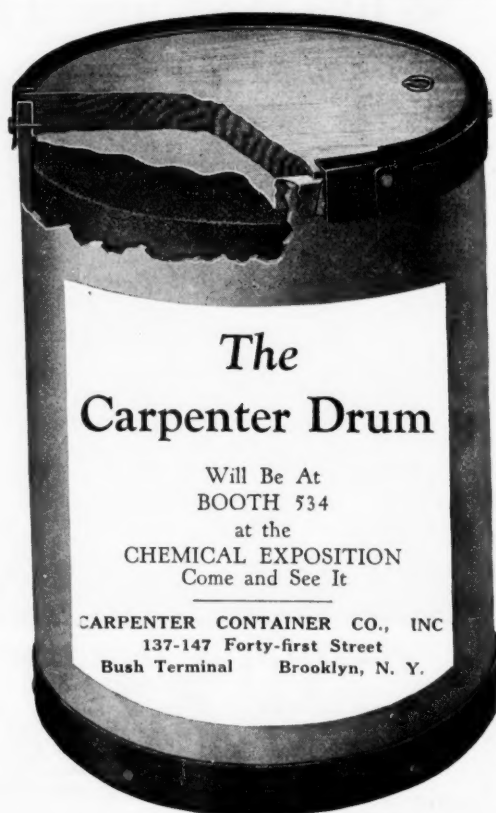
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WANTED: Thoroughly experienced plant executive for production of aniline azo dyes and intermediates on a large scale. Permanent connection with opportunity for development. Submit qualifications as well as previous experience, as well as salary wanted. All replies treated in absolute confidence. BOX 729, CHEMICAL MARKETS.

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Local Market Conditions

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Resin has been in good demand recently, and there has also been considerable interest in cresylic acid and creosote.

Higher prices now prevailing for Quicksilver have led to an increased activity among a number of the smaller Quicksilver mines in California. It has recently been reported that a large Cinnabar deposit between Bodie and Bridgeport, California, has been sold to a group of Los Angeles capitalists who plan considerable development work in the very near future.

BOSTON

General business conditions in the Boston territory are quite good, and while chemical business is not quite as encouraging it may be considered quite fair. There has not been any decided activity because of the Summer season and the only price change of the past few weeks worthy of comment is the reduction in wood alcohol. Collections are good.

KANSAS CITY

After a fairly active August the demand for chemicals in this section seems to have slowed down slightly in the last few days but indications in the southwestern territory are for renewed and probably increased activity during the fall months. Alcohol is still waiting for the opening of the active season. Copper carbonate is very active. Glycerine is dragging and in about the same position for actual movement as alcohol. Collections are somewhat better.

BUFFALO

Chemical business in general has been exceptionally good considering the summer period. Steady withdrawals have been made on practically all alkalis with no let up in quantity either in direct car shipments or local warehouse stocks. The volume has been most satisfactory. Copper sulfate has been in unusual demand, and the inability of some large manufacturers and consumers to get this material on contract has forced them to pay premiums for stocks in second hand. The situation now, however, is somewhat easier. Some china wood oil business has been done. Calcium chloride in good demand for road and general concrete construction work. Denatured alcohol has been quiet although some of the jobbers and

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Local Market Conditions

wholesalers are beginning to order out their supplies in anticipation of fall delivery. General industrial conditions around Buffalo fairly good. Western and Central New York industrial activity fairly satisfactory. Hand-to-mouth buying on menthanol due to weak market. Good demand for lacquer solvents and thinners. Collections fairly satisfactory for this time of the year. The future outlook for business during the balance of the year in Buffalo and Western New York fairly satisfactory.

CLEVELAND

Business in the Cleveland territory for the past month has been very spotty and complaints have been heard generally about the lack of orders. However, there is a feeling that after Labor Day business will again pick up and every one seems quite optimistic. The alcohol market has remained quite firm with very few sales recorded. Glycerin is holding at about 24c in drums, with business very light. There have been some sales on rosin and turpentine but not any particular volume. General business has been rather quiet due, no doubt, to the season but the paint business seems to have held up as well as any other industry.

PHILADELPHIA

With the past week business has been fairly satisfactory and orders are more plentiful than they have been for sometime past. Also with the passing of the summer season and after the holiday of the coming week is over the trade here feels that business will show an upward swing and there is a considerable amount of confidence displayed. We also believe that prices will be satisfactory. The items most active are as follows: Naphthalene is extending into a late season. Magnesium carbonate is also moving in good demand as is chlorate of potash. Sal ammoniac is rather slow. Carbonate of potash 80/85% is in fairly good demand. Epsom salts, U₄ S. P. in barrels and kegs is also in fair demand. Yellow prussiate of soda is extremely scarce and very firm in price. Denatured alcohol is moving slowly at 45c to 47c for completely denatured No. 5 in drums. While there is some demand for this item on contract for future deliveries the business being placed is small. Inquiries for glycerin seem to be picking up and the market has a firming tendency. Prices range from 24c to 24½c.

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Greff & Co., R. W.
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Monsanto Chemical Works
Roessler & Hasslacher Chemical Co.
Turner & Co., Joseph
Victor Chemical Works

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DuPont de Nemours & Co., E. I.
General Chemical Co.
Grasselli Chemical Co.
Heyden Chemical Corp.
Monsanto Chemical Works
Pennsylvania Salt Manufacturing Co.

ALCOHOL

Denatured

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Commercial Solvents Corp.
Federal Products Co.
Gray & Co., William S.
Miner-Edgar Co.
Roessler & Hasslacher Chemical Co.
Seaboard Chemical Co.
U. S. Industrial Alcohol Co.

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Gray & Co., William S.
Greff & Co., R. W.
Miner-Edgar Co.
Roessler & Hasslacher Chemical Co.
Seaboard Chemical Co.

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Church & Dwight
Electro Bleaching Gas Co.
Grasselli Chemical Co.
Lewis, John D.
Mathieson Alkali Works
Michigan Alkali Co.
Niagara Alkali Co.
Pennsylvania Salt Manufacturing Co.
Roessler & Hasslacher Chemical Co.
Solvay Process Co.
Turner & Co., Joseph
Warner Chemical Co.
Winkler & Bros., Co., Isaac

ALUMS

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General Chemical Co.
Grasselli Chemical Co.
Greff & Co., R. W.
Monsanto Chemical Works

Pennsylvania Salt Co.
Roessler & Hasslacher Chemical Co.

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Grasselli Chemical Co.
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Lewis, John D.
Mallinckrodt Chemical Works
Mathieson Alkali Works
Roessler & Hasslacher Chemical Co.
Turner & Co., Joseph
U. S. Industrial Chemical Co., Inc.

DYE & TAN STUFFS

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General Dyestuff Corp.
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Electro Bleaching Gas Co. (chlorine)
General Chemical Co.
Grasselli Chemical Co.
Gray William S. & Co., (wood chem)
Greff & Co., R. W.
Industrial Chemical Co.
International Salt Co.
Jordan, Wm. E. & Bro.
Lewis, John D.
Mathieson Alkali Works
Merchants Chemical Co.
Michigan Alkali Co.
Miner-Edgar Co. (wood chem.)
Monsanto Chemical Works
Niagara Alkali Co.
Pacific Coast Borax Co.
Parsons & Pettit (sulfur)
Pennsylvania Salt Manufacturing Co.
Roessler & Hasslacher Chemical Co.
Seaboard Chemical Co. (wood chemicals)
Selden Co.
Solvay Process Co. (alkalies)
Starkweather Co., J. U.
Turner & Co., Joseph
U. S. Industrial Alcohol Co., Inc.
U. S. Industrial Chemical Co., Inc.
Victor Chemical Works
Warner Chemical Co.
Wiarda & Co., John C.
Winkler & Bros. Co., Isaac (alkalies)
Wishnick-Tumpeier, Inc.

SOLVENTS

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HE flicks the ash from his cigar into a receiver which was plated with Copper Cyanide and Cyanegg. It may have a nickel finish. In that case Nickel Salts and Nickel Chloride were needed, and kept shining with polish containing Denatured Alcohol.

John resumes with a statement that fire regulations today are very strict. Even the office partitions and other woodwork must be fireproof. "But," he adds, "treating these materials with R & H Chemicals will solve that problem."

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The meeting adjourns. The janitor's force then takes charge, their cleaning equipment including Germicides made with P A C Formaldehyde, or perhaps Paradichlorobenzene.

(See John next on his way to the golf club)

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